Multiple-choice answers will not have letters inside the bubbles.
Multiple-choice numbers should usually be written in order from **smallest to largest** or **largest to smallest**. Unfortunately, this is not always the case in this document.
Emphasized words are now shown in lower case bold letters, not capital letters.
Questions should not be separated from multiple choice answers. If a picture, graphic, graph, etc is part of the question, the question should be below the picture immediately followed by the multiple choice answers or the space for open-ended answers.
Children may write in the testing booklet, even with multiple choice items. Do not write next to the bubbles. There will be no separate answer booklets for any grades.
Strands and objectives will be tested with the same objectives clustered together and on the same day of testing. Multiple choice items will appear first on each day of testing, and open-ended items will be last on each day of testing. Strands that have both multiple choice items and open-ended items will not be clustered together and may not be tested on the same day.
There will be only two Strand 25 (Solving extended) problems on all tests, grades 3 – 8. Both Strand 25 items will be last on the last day of testing .
Scale to letter or legal size when printing this document. **Otherwise the entire page will not print.**

tinabernarda@comcast.net or tinadellabernarda@ci.bristol.ct.us

Revised: March 27, 2006

Grade 3 – Page 29 Added another problem

Gr 4 – Obj 5C Page 36 corrected; Cover Information Updated
Grade 4 – Obj. 4E (open-ended) is now eliminated
Grade 4 – Strand 20 is now eliminated

STRAND 1: PLACE VALUE
Objectives 1A, 1B, 1C, 1D

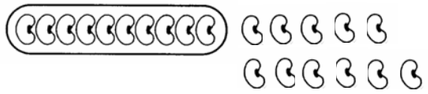
2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
The examples in this column are sample items based on the 3rd Generation Grade 3 Off Level CMT - Good indication of what second graders should know by March for future CMT success	**1A: Solve problems involving 1 MORE/LESS or 10 MORE/LESS using 2-digit numbers.** There were fifteen children playing baseball. Then one **more** student joined the game. Now how many children are playing baseball? O 4 O 9 O 14 O 16 ***	**1A: Solve problems involving 10 MORE/LESS or 100 MORE/LESS than a given number.** Jean baked 52 cookies for the school fair. Steve baked 10 **more** cookies than Jean did. How many cookies did Steve bake? O 62 *** O 53 O 51 O 42	**1A: Solve problems involving 100 MORE/LESS or 1000 MORE/LESS than a given number.** Laurie flew 4252 miles last month. Robert flew 100 **more** miles than Laurie. How many miles did Robert fly? O 3252 O 4152 O 4352 *** O 5252
	Jessica rode her bike 32 miles last month. This month she rode her bike 10 **fewer** miles. How many miles did she ride her bike this month? ○ 42 ○ 31 ○ 22 *** ○ 12	At the school fair, 425 brownies were sold on Friday night. On Saturday, 10 **fewer** brownies were sold. How many brownies were sold on Saturday? O 525 O 435 O 415 *** O 325	Last week Mr. Collins corrected 336 stories written by his fifth graders. This week he corrected 100 **fewer** stories than last week. How many stories did he correct this week? O 436 O 346 O 326 O 236 ***
	Tom put $29.00 in the bank. His pal Andrew put $10.00 **more** in the bank than Tom did. How much money did Andrew put in the bank? O $39.00 *** O $19.00 O $30.00 O $28.00	Last week, Dakota drove 176 miles to get a hot dog. This week he drove 10 miles **more** to get a pizza. How many miles did he drive this week? O 276 O 186 *** O 166 O 266	Last year Frank earned $4836 working part time as a barber. This year he earned $100 **less**. How much money did Frank earn this year? O $4936 O $4736 *** O $5836 O $3836
	Tammy watched 41 ball games last summer. José saw 1 **less** ball game than Tammy did. How many ball games did José see? O 31 O 51 O 42 O 40 ***	Wendy had $358. Dennis had $100 **less** than Wendy did. How much money did Dennis have? O $458 O $368 O $348 O $258 ***	Roberta peeled 2875 potatoes last month. This month she peeled 1000 **fewer** potatoes. How many potatoes did she peel this month? O 2975 O 1875 *** O 2775 O 3875

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
1A: Identify alternative forms of expressing whole numbers (< 100) using expanded notation. Which means the same as 29? ◯ 90 + 2 ◯ 20 + 9 *** ◯ 20 + 90 ◯ 2 + 9	**1B: Identify alternative forms of expressing 3-digit whole numbers using expanded notation.** Which means the same as 291? O 200 + 90 + 1 (291) *** O 2 + 9 + 1 (12) O 200 + 900 + 1 (1101) O 200 + 9 + 1 (211)	**1B: Identify alternative forms of expressing whole numbers < 1000 using expanded notation.** [2-Digit Numbers might also be tested.] Which means the same as 681? O 60 + 80 + 1 O 60 + 80 + 10 O 600 + 80 + 1 *** O 600 + 8 + 1	**1B: Identify alternative forms of expressing whole numbers (< 10,000) using expanded notation.** Which means the same as 2607? O 200 + 60 + 7 O 200 + 600 + 7 O 2000 + 600 + 70 O 2000 + 600 + 7 ***
Which means the same as 30 + 8? ◯ 11 ◯ 38 *** ◯ 308 ◯ 803	Which means the same as 500+70+8? O 500,708 O 50,708 O 5,708 O 578 ***	Which means the same as 200 + 4? O 2040 O 2004 O 204 *** O 240	Which means the same as 5000 + 20 + 7? O 5270 O 5027 *** O 5207 O 50,027
Which means the same as 37? ◯ 3 + 7 ◯ 7 + 3 ◯ 30 + 7 *** ◯ 70 + 3	Which means the same as 400 + 6? ◯ 46 ◯ 64 ◯ 406 *** ◯ 460	Which means the same as 58 tens? O 58 O 580 *** O 5800 O 5810	Which means the same as 76 tens? O 7600 O 7060 O 760 *** O 76
	Which means the same as 25 tens? ◯ 25 ◯ 250 *** ◯ 2500 ◯ 25,000	Which means the same as 92? O 90 tens and 2 ones O 92 ones *** O 92 tens O 92 hundreds	Which means the same as 28 hundreds? O 28,100 O 2800 *** O 2080 O 280
			Which means the same as 520? O 52 ones O 52 tens *** O 52 hundreds O 52 thousands

2nd Graders

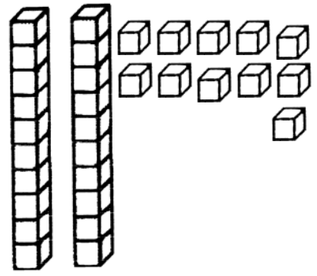
1B: Identify alternative forms of expressing whole numbers (< 100) by regrouping using pictures of bean sticks or base ten materials.

Which number is shown by the bean sticks in this picture?



- ◯ 12
- ◯ 13
- ◯ 21 ***
- ◯ 31

Which number is shown by the blocks below?



- ◯ 24
- ◯ 82
- ◯ 48
- ◯ 31 ***

Vice versa: Question has number, and 4 choices have pictures of bean sticks or base ten blocks.

Example: Which picture shows 42?

Grade 3 CMT

1C: Identify alternative forms of expressing 2-digit whole numbers using regrouping.

Which means the same as 3 tens and 12 ones?
(OR: Which means the same as 3 tens, 12 ones?)

- O 3012
- O 312
- O 42 ***
- O 15

Which means the same as 83?

- O 7 tens and 13 ones (83) ***
- O 8 tens and 13 ones (93)
- O 80 tens and 3 ones (803)
- O 83 tens (830)

Grade 4 CMT

1C. Identify alternative forms of expressing whole numbers < 1000 using regrouping. [2- and 3-digit numbers]

Which means the same as 586?
- O 4 hundreds + 18 tens + 6 ones ***
- O 4 hundreds + 8 tens + 6 ones
- O 5 hundreds + 8 tens + 16 ones
- O 5 hundreds + 18 tens + 6 ones

Which means the same as 247?
- O 1 hundred + 4 tens + 17 ones
- O 1 hundred + 3 tens + 17 ones
- O 2 hundreds + 13 tens + 7 ones
- O 2 hundreds + 3 tens + 17 ones ***

Which means the same as 645?
- O 6 hundreds + 3 tens + 5 ones
- O 6 hundreds + 13 tens + 15 ones
- O 5 hundreds + 3 tens + 15 ones
- O 5 hundreds + 13 tens + 15 ones ***

Which means the same as
7 hundreds + 1 ten + 13 ones?
- O 723 ***
- O 803
- O 713
- O 813

Which means the same as
8 hundreds, 15 tens, 9 ones?
- O 969
- O 959 ***
- O 859
- O 869

Which means the same as
3 tens and 16 ones?
- O 36
- O 46 ***
- O 316
- O 346

Grade 5 CMT

1C: Identify alternative forms of expressing whole numbers < 10,000 using regrouping.

[*This objective might include both 3- and 4-digit numbers.]*

Which means the same as 7236?
- O 7000 + 200 + 130 + 6
- O 7000 + 20 + 30 + 6
- O 7000 + 100 + 130 + 6 ***
- O 6000 + 200 + 30 + 6

Which means the same as 8245?
- O 7 thousands + 2 hundreds + 13 tens + 15 ones
- O 7 thousands + 11 hundreds + 13 tens + 15 ones *
- O 7 thousands + 11 hundreds + 3 tens + 15 ones
- O 8 thousands + 11 hundreds + 13 tens + 15 ones

Which means the same as
5 thousands + 14 hundreds + 7 tens + 8 ones?
- O 6478 ***
- O 5478
- O 6378
- O 7447

Which means the same as 8000 + 800 + 130 + 7?
- O 8837
- O 9847
- O 8937 ***
- O 8947

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
1C: Use place value concepts to interpret the meaning of numbers. What is the value of 4 in the number 47? ◯ 4 ◯ 7 ◯ 40 *** ◯ 47	**1D: Use place value concepts to identify and compare the magnitude and value of digits in 2- and 3-digit numbers.** What is the value of 8 in the number 58? O 8 *** O 5 O 58 O 85	**1D: Use place value concepts to identify and compare the magnitude and value of digits in 2- and 3-digit numbers.** What is the value of 4 in the number 947? O 4 O 9 O 40 *** O 900	**1D: Use place value concepts to identify and compare the magnitude and value of digits in numbers.** *[Could this include 5-digit numbers?]* What is the value of 7 in the number 8724? O 724 O 700 *** O 100 O 7000
What is the value of 2 in the number 82? O 8 O 2 *** O 10 O 20	What is the value of 6 in the number 625? O 6 O 60 O 600 *** O 6000	What is the value of 2 in the number 283? O 800 O 200 *** O 30 O 80	What is the value of 2 in the number 2619? O 2 O 20 O 200 O 2000 ***
In which number does the tens place have the **greatest** value? ◯ 94 *** ◯ 19 ◯ 76 ◯ 48	In which number does the hundreds place have the **greatest** value? O 285 O 382 O 832 *** O 538	In which number does the tens place have the **greatest** value? O 491 *** O 814 O 164 O 841	In which number does 5 have the **greatest** value? O 8573 O 5387 *** O 3758 O 7835
In which number does the 3 have the **least** value? ◯ 93 *** ◯ 30 ◯ 36 ◯ 38	In which number does the 5 have the **least** value? O 593 O 953 O 935 *** O 539	In which number does 6 have the **least** value? O 268 O 826 *** O 862 O 628	In which number does the thousands place have the **least** value? O 9246 O 2964 *** O 6429 O 4692

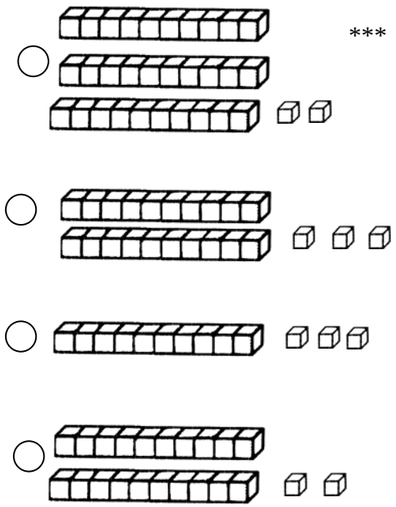
2nd Graders	Grade 3 CMT	4th Graders	Grade 5 CMT
	Obj. 1D: Continued The value of 28 would change by how much if the 8 were replaced by a 5? O 3 *** O 5 O 30 O 80	**Obj. 1D: Continued** The value of 829 would change by how much if the 2 were replaced by a 7? O 50 *** O 70 O 500 O 700	**Obj. 1D: Continued** The value of 924 would change by how much if the 2 were replaced by a 3? O 10 *** O 934 O 100 O 1 9 2 4: 20 changed to 30
	The value of 642 would change by how much if 8 replaced 6? O 710 O 130 O 200 *** O 400 642: 6 in the hundreds place was changed to 8 in the hundreds place – this represents a change of 2 in the hundreds place, which = 200	The value of 639 would change by how much if 5 replaced 6? O 100 *** O 135 O 535 O 600	The value of 2984 would change by how much if the 7 replaced the 2? O 500 O 7000 O 7974 O 5000 *** 2 9 8 4 2000 to 7000 is a difference of 5000
		In which number does 2 stand for 2 hundreds? O 672 O 726 O 627 O 267 ***	In which number does 4 stand for 4 thousands? O 9426 (4 = 400) O 2964 (4 = 4) O 4692 (4 = 4000) *** O 6249 (4 = 40)
		In which number does 7 stand for 7 tens? O 5297 O 792 O 279 *** O 7925	In which number does 7 stand for 7 hundreds? O 2759 *** O 9572 O 7295 O 5927

STRAND 2: PICTORIAL REPRESENTATIONS OF NUMBERS
Objectives 2A, 2B, 2C

2nd Graders

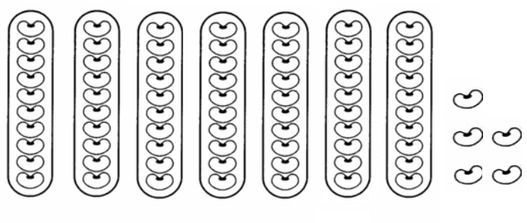
2A: Identify numbers (<100) from pictures of base ten materials or bean sticks and vice versa.

Which picture shows the number 32?



***

What number does the picture show?

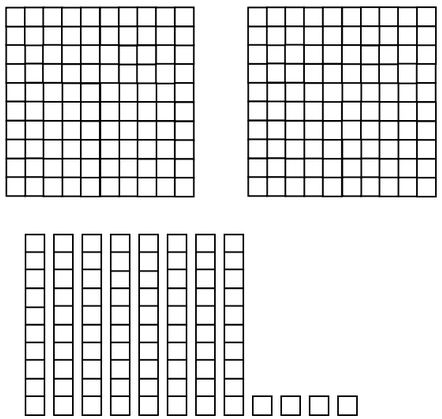


O 95
O 75 ***
O 57
O 12

Grade 3 CMT

2A: Relate whole numbers to pictorial representations of base ten blocks and vice versa.

Which number is shown by the blocks in this picture?



O 428
O 248
O 284 ***
O 824

Vice Versa Questions: Which picture shows the number 213? Multiple choice answers all have pictures of base ten blocks.

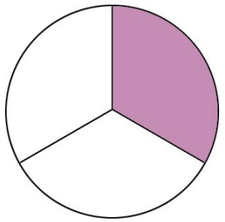
Grade 4 CMT

Grade 5 CMT

2nd Graders

2B: Match unit fractions with pictorial representations of fractions ($\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{6}$)

What fraction of the shape is shaded? Then use simpler language.)



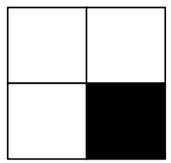
O $\frac{1}{2}$

O $\frac{1}{3}$ ***

O $\frac{1}{4}$

O $\frac{1}{6}$

What fractional part of the shape is shaded?



O $\frac{1}{2}$

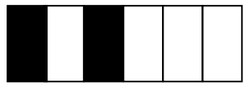
O $\frac{1}{4}$ ***

O $\frac{1}{3}$

O $\frac{1}{6}$

Grade 3 CMT

2B: Identify fractional parts of regions and sets using pictures and vice versa.



(REGIONS) What fractional part of the shape is shaded?

O $\frac{2}{4}$

O $\frac{1}{2}$

O $\frac{2}{6}$ ***

O $\frac{4}{6}$

(SETS) What fractional part of the hearts is shaded?

O $\frac{1}{2}$

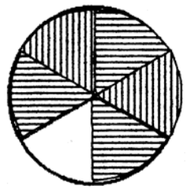
O $\frac{3}{4}$

O $\frac{2}{3}$

O $\frac{1}{3}$ ***

Grade 4 CMT

2A: Relate fractions to pictorial representations and vice versa.
2B: Relate fractions of regions and sets to pictures and vice versa.



Students will need to use very easy equivalent fractions.

(REGIONS) How much of the shape is shaded?

O $\frac{1}{6}$

O $\frac{2}{3}$

O $\frac{5}{6}$ ***

O $\frac{1}{5}$

Very simple and easy fractions will probably be simplified. If 3/6 of the circle had been shaded, the only correct answer would have been 1/2, not 3/6

(SETS) What fractional part of the set of shapes is shaded?

O $\frac{3}{2}$

O $\frac{2}{3}$

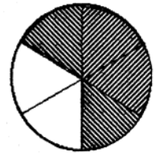
O $\frac{2}{5}$

O $\frac{3}{5}$ ***

Grade 5 CMT

2B: Relate fractions to pictures and vice versa.

Please note: Students will need to use equivalent fractions



The shaded part of this picture shows which fraction?

O $\frac{2}{3}$ ***

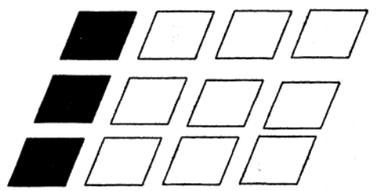
O $\frac{2}{4}$

O $\frac{1}{2}$

O $\frac{1}{3}$

Vice Versa Questions also included

The shaded part of this pictures shows which fraction?



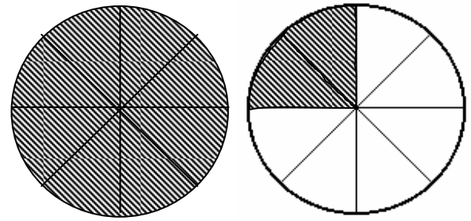
O $\frac{1}{2}$

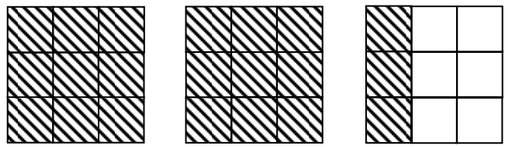
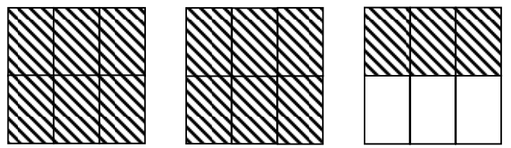
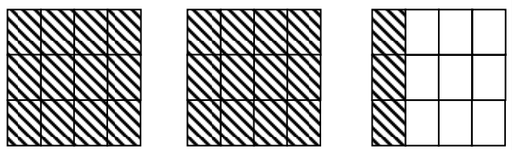
O $\frac{1}{4}$ ***

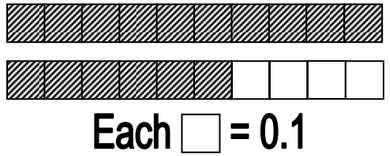
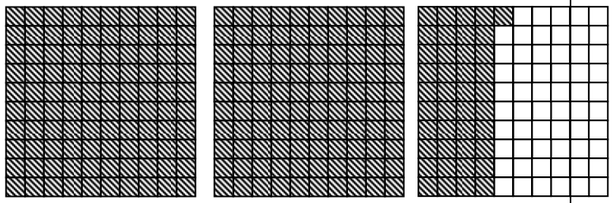
O $\frac{1}{3}$

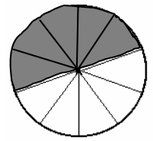
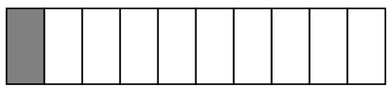
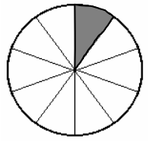
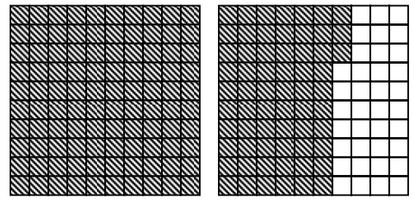
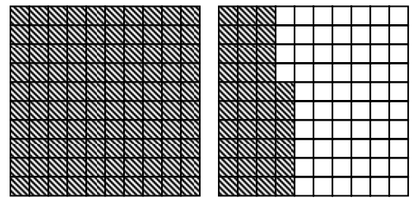
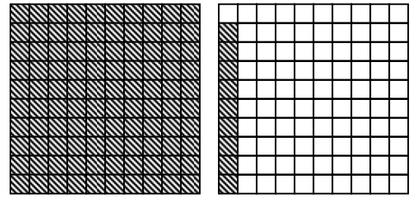
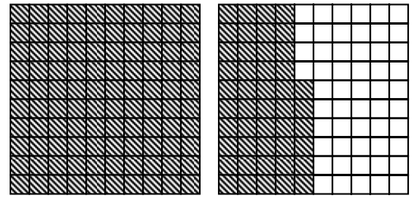
O $\frac{1}{6}$

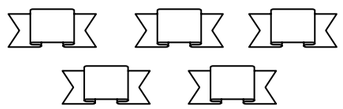
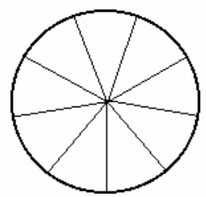
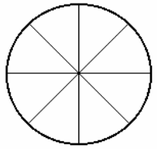
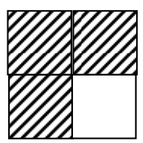
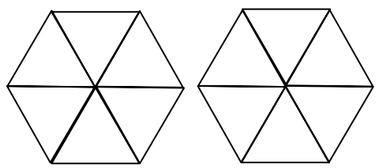
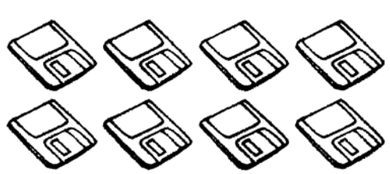
STRAND 2: PICTORIAL REPRESENTATIONS OF NUMBERS
Objectives 2A, 2 B, 2C

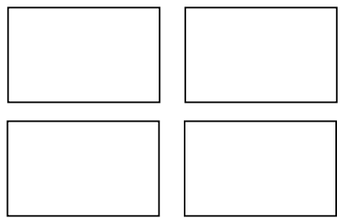
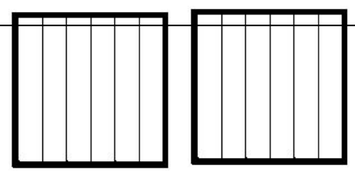
2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
			2B: Relate mixed numbers to pictures and vice versa.  The shaded part of this picture shows which mixed number? O $1\frac{1}{2}$ O $1\frac{1}{3}$ O $1\frac{1}{4}$ *** O $1\frac{1}{6}$ $1\frac{2}{8} = 1\frac{1}{4}$

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
			2B Continued Which picture shows $2\frac{1}{3}$? O ***  O  O  O 

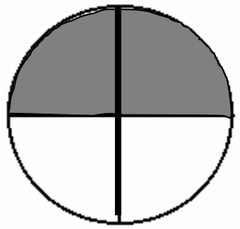
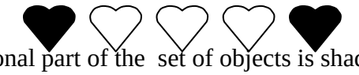
2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
		2A: Relate decimals to pictorial representations and vice versa ***[0.1 – 2.9 ?]***  The shaded part of the picture shows what decimal number? O 0.1 O 2 O 1.6 *** O 1.4	**2A: Relate decimals (0.01 – 2.99) to pictorial representations and vice versa.** The shaded part of this picture shows which decimal number?  Each □ represents 0.01 O 24.1 O 2410 O 2.41 *** O 24.01

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
		2A: Relate decimals to pictorial representations and vice versa Which picture shows 0.5 shaded? O  0.9 O  *** 0.5 O  0.1 O  0.1	**2A: (Continued) Relate decimals (0.01 – 2.99) to pictorial representations and vice versa.** Which picture below shows 1.36 shaded? O  O ***  O  O 

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
	2C: Label and/or shade fractional parts of regions and sets.	**2C: Label and/or shade fractional parts of regions and/or sets.**	**2C: Identify and/or shade fractional parts of regions or sets in pictures.**
	Shade in $\frac{1}{4}$ of the rectangle. (*Ok to divide rectangle in fourths and then shade 1/4)* 	Draw a ring around $\frac{1}{4}$ of the bells  *Circle any 2 bells that your little heart desires.* *OR: Draw 1 circle around 2 bells.*	Draw a ring around $\frac{1}{2}$ of the wizards.  *Circle 4 wizards.* $\frac{1}{2} = \frac{4}{8}$
	Shade in $\frac{3}{5}$ of the ribbons. 	Shade in $\frac{2}{9}$ of the shape below.  *Shade in any 2 of the 9 equal parts of this circle.*	Shade in $\frac{3}{4}$ of the circle.  *Shade in a total of 6 of the 8 equal parts.*
	Draw a ring around $\frac{2}{3}$ of the books. 	Shade in $\frac{3}{4}$ of the shape.  *Shade in any 3 parts.* *This is only one of the possible answers.*	Shade in $1\frac{1}{2}$ of the figures.  *Shade in a total of 9 triangles.* $\frac{6}{6} + \frac{3}{6} = 1 + \frac{1}{2} = 1\frac{1}{2}$
	Draw a ring around $\frac{1}{8}$ of the disks. 		

		Grade 4 CMT	Grade5 CMT
			2C: Identify and/or shade mixed numbers in pictures. ***[Multiple Choice Questions should be included with this objective.]*** Shade in $2\frac{3}{4}$ of the dinner plates.  Answer: Shade in any 2 plates and $\frac{3}{4}$ of the remaining plate. Shade in $3\frac{1}{2}$ of the shapes.  *I don't know if this type of problem would appear on the Grade 5 CMT where the shape is already divided and equivalent fractions are needed. Example:* Shade in $1\frac{2}{3}$ of the figures. 

STRAND 3: EQUIVALENT FRACTIONS, DECIMALS, AND PERCENTS
Objectives 3A, 3B

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
		3A: Relate equivalent fractions to pictorial representations.  What is another name for the shaded part of this picture? O $\frac{1}{2}$ *** O $\frac{1}{3}$ O $\frac{1}{4}$ O $\frac{1}{6}$ Include vice versa questions for fractional parts of regions and fractional parts of sets. See handbook for a different example of this type of problem. What fractional part of the set of objects is shaded?  O $\frac{2}{3}$ O $\frac{2}{5}$ *** O $\frac{3}{2}$ O $\frac{3}{5}$	**3A: Rename equivalent fractions.** In Linda's family, 5 of the 15 members hate chocolate. Which is another way to describe this? O $\frac{1}{2}$ of Linda's family hates chocolate. O $\frac{1}{3}$ of Linda's family hates chocolate. *** O $\frac{3}{4}$ of Linda's family hates chocolate. O $\frac{5}{6}$ of Linda's family hates chocolate. Cynthia broke $\frac{1}{4}$ of her pencils. What is another way to describe this? O Cynthia broke 6 of her 8 pencils. ($\frac{3}{4}$) O Cynthia broke 4 of her 6 pencils. ($\frac{2}{3}$) O Cynthia broke 5 of her 10 pencils. ($\frac{1}{2}$) O Cynthia broke 3 of her 12 pencils. *** ($\frac{1}{4}$)

2 nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT

3B: Rename equivalent mixed numbers as improper fractions and vice versa. [No pictorial representations are shown on CMT for this objective]

Which fraction is equivalent to $4\frac{2}{3}$?

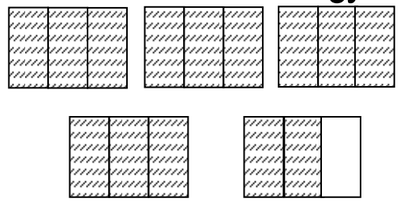
O $\frac{14}{3}$ ***

O $\frac{11}{3}$

O $\frac{10}{3}$

O $\frac{9}{3}$

One Possible Strategy



Which mixed number is equivalent to $\frac{18}{5}$?

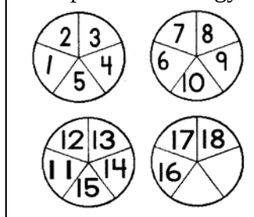
O $12\frac{1}{5}$

O $5\frac{2}{3}$

O $3\frac{3}{5}$ ***

O $1\frac{5}{8}$

One possible strategy



STRAND 4: ORDER, MAGNITUDE, AND ROUNDING
Objectives 4A, 4B, 4C, 4D, 4E, 4F, 4G

2nd Graders

4B: Order whole numbers less than 100.

The chart below shows the speed of three animals.

Animal	*Speed (Miles per Hour)*
Gazelle	50
Horse	43
Brown Hare	45

Which list shows the animals in order from **fastest to slowest** speed?

- ◯ Gazelle, Horse, Brown Hare
- ◯ Brown Hare, Gazelle, Horse
- ◯ Brown Hare, Horse, Gazelle
- ◯ Gazelle, Brown Hare, Horse ***

Practice words of comparison:
greatest - least
fastest - slowest, etc.

Grade 3 CMT

4A: Order 2- and 3-digit whole numbers.
Use the table to answer the question.

FRUIT STAND

FRUIT	PRICE
Apples	63¢ each
Bananas	54¢ each
Oranges	67¢ each
Plums	48¢ each

Which list below shows the price of the fruit in order from **least** to **greatest**?

OR GREATEST TO LEAST

- O 67¢, 48¢, 54¢, 63¢
- O 48¢, 67¢, 54¢, 63¢
- O 48¢, 54¢, 63¢, 67¢ ***
- O 54¢, 63¢, 67¢, 48¢

The chart shows the weight (in pounds) of some of the heaviest turtles.

TYPE OF TURTLE	WEIGHT (POUNDS)
Loggerhead Turtle	568
Flatback Turtle	171
Hawksbill Turtle	138
Green Sea Turtle	783

Which list shows the turtles in order from **heaviest to lightest** in weight?

- O loggerhead, flatback, hawksbill, green sea
- O flatback, green sea, loggerhead, hawksbill
- O hawksbill, flatback, green sea, loggerhead
- O hawksbill, flatback, loggerhead, green sea

Grade 4 CMT

4A: Order whole number < 10,000.

The chart below shows how the students at Polygon Public Elementary School voted:

Favorite New Crayon Color	Number of Votes
Dandelion	286
Jungle Green	315
Royal Purple	229
Wild Strawberry	247

If the colors were written in order from **least** to **greatest** number of votes, which color would be written last?

OR GREATEST TO LEAST

- O Dandelion (286)
- O Jungle Green *** (315)
- O Royal Purple (229)
- O Wild Strawberry (247)

Also ask questions such as:
Which color would be first? would be third; would be second, etc.
Which color would have the highest number of votes?
Which color would have the lowest number of votes?
The most; The greatest; The fewest; The least, etc.

Grade 5 CMT

4A: Order whole numbers less than 100,000.
[3-, 4- and 5-digit numbers?]
Patricia loves sports. She made a chart to show the average number of people who went to ballparks to see their teams play.

TEAM	NUMBER OF PEOPLE
New York Yankees	40,346
St. Louis Cardinals	41,036
Colorado Rockies	40,898
Baltimore Orioles	40,428

If the teams were listed in order from **greatest** to **least** number of people attending, which team would be second on the list?

- O New York Yankees
- O St. Louis Cardinals
- O Colorado Rockies ***
- O Baltimore Orioles

41,036 St. Louis Cardinals
40,898 Colorado Rockies
40,428 Baltimore Orioles
40,346 New York Yankees

STRAND 4: ORDER, MAGNITUDE, AND ROUNDING
Objectives 4A, 4B, 4C, 4D, 4E, 4F, 4G

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT

Grade 3 CMT

Obj. 4A: Continued

Students in Dumbledore Elementary School voted for their favorite toys. Use the table to answer the question..

FAVORITE TOYS	
TOY	VOTES
Electronic Quiddich	47
Book of Spells	58
Levitating Challenge Game	42
Polyjuice™ Potion Maker	54

Which toy received the **fewest** votes?

O Electronic Quiddich
O Book of Spells
O Levitating Challenge Game ***
O Polyjuice™ Potion Maker

or ask: the **most** votes, or
more votes than,
fewer votes than,
most popular toy,
least popular, etc.

Grade 4 CMT

Obj. 4A: Continued

The table below shows the population of four Connecticut towns in 1998.

TOWN	POPULATION
Weston	8846
Redding	8167
Hebron	8043
Oxford	9279

Which list below shows the four towns listed in order from **greatest** to **least** population?

O Oxford, Hebron, Redding, Weston
O Hebron, Oxford, Weston, Redding
O Oxford, Weston, Redding, Hebron ***
O Redding, Weston, Oxford, Hebron

OTHER POSSIBLE QUESTIONS:

- If the four towns were listed in order of population by **least** to **greatest**, which town would be listed third? Which town would be listed second? Etc.
- Which town's population was **greater** than Weston's?
- Which town had a population **less** than Redding's

Grade 5 CMT

Obj. 4A: Continued

The chart shows the populations of five Connecticut towns in 1998. Use the chart to answer the question.

TOWN	NUMBER OF PEOPLE
Woodbury	8718
Granby	9592
Thompson	8994
Oxford	9279

Which town had the **greatest** number of people?

O Woodbury 8718
O Granby 9592 ***
O Thompson 8994
O Oxford 9279

STRAND 4: ORDER, MAGNITUDE, AND ROUNDING
Objectives 4A, 4B, 4C, 4D, 4E, 4F, 4G

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT

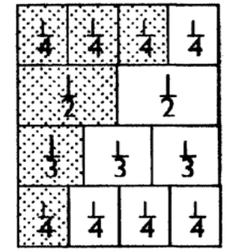
4B: Order fractions, mixed numbers, and decimals (tenths?) .

Graham weighed four animals and made a table to show how many tons each animal weighed.

ANIMAL	WEIGHT (TONS)
polar bear	$\frac{1}{2}$
gorilla	$\frac{1}{4}$
camel	$\frac{3}{4}$
moose	$\frac{1}{3}$

Which animal weighed the **least**?

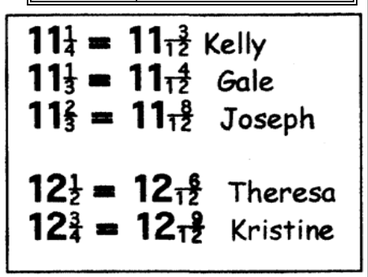
O polar bear
O gorilla ***
O camel
O moose



This chart shows how much gas five people put in their cars.
Who put **less** gas in their car than Gale did?

PEOPLE	GALLONS OF GAS
Joseph	$11\frac{2}{3}$
Kristine	$12\frac{3}{4}$
Gale	$11\frac{1}{3}$
Kelly	$11\frac{1}{4}$
Theresa	$12\frac{1}{2}$

O Joseph
O Kristine
O Kelly ***
O Theresa



STRAND 4: ORDER, MAGNITUDE, AND ROUNDING
Objectives 4A, 4B, 4C, 4D, 4E, 4F, 4G

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT

Obj. 4B Continued – Order decimals
Grade 5 may order decimals in tenths, not hundredths

Judith hopes to travel to the stars some day. She made a chart to show how far away five of her favorite stars are from Earth.

STAR	DISTANCE IN LIGHT-YEARS
Luyten	8.43
Lalande	8.22
Proxima Centuri	4.22
Sirius	8.65
Alpha Centuri	4.35

Which star is **farther** from Earth than Luyten?

O Lalande
O Proxima Centuri
O Sirius ***
O Alpha Centuri

4.22 PC
4.35 AC
8.22 La
8.43 Luy
8.65 Sir

STRAND 4: ORDER, MAGNITUDE, AND ROUNDING
Objectives 4A, 4B, 4C, 4D, 4E, 4F, 4G

2nd Graders

4C: Solve problems involving one or two more or less than a given number.

The second graders voted for their favorite pets.
Use the chart to answer the question.

Pets	Number of Votes
cats	19
dogs	16
birds	15
snakes	21

Which pet had **2 fewer** votes than snakes?

◯ cats ***
◯ dogs
◯ birds
◯ snakes

ANOTHER QUESTION:

- Which pet had 2 **more** votes than cats?
- Which pet had 1 more vote than birds?
- Which pet had 1 less vote than snakes?

Grade 3 CMT

4B: Describe magnitude of 2- and 3-digit whole numbers.

Use the table below to answer the questions.

MONEY SAVED	
PERSON	AMOUNT
Mel	$62
Tom	$38
Sam	$67
Lee	$57
Alex	$41

Which 2 people both saved **more** than $40.00 but **less** than $60.00?

O Sam and Mel *(Both are over $60)*
O Alex and Lee *(Alex = $41 *** Lee = $57)*
O Mel and Lee *(Lee is OK, but Mel is over $60)*
O Alex and Tom *(Alex is OK, but Tom is under $40)*

Who saved **less** than $40.00?

O Lee
O Sam
O Tom ***
O Alex

Who saved $10 **less** than Sam did?

O Lee ***
O Mel
O Tom
O Alex

Grade 4 CMT

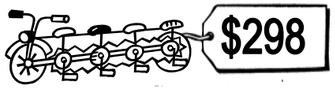
4B: Describe magnitude of 2- and 3-digit whole numbers …

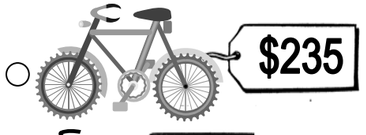
The fourth graders collected between 571 and 633 pennies in one week. How many pennies did they collect?

O 562
O 598 ***
O 638
O 653

Marci has exactly $250 to spend. Which is the only bike she is able to buy?

◯ 

◯ 

◯ 

***

◯ 

Grade 5 CMT

4C: Describe the magnitude of whole numbers < 100,000.

It wouldn't hurt to review magnitude of 3-digit numbers. See the problems in the Grade 3 and Grade 4 columns for suggestions.

Use the chart to answer the following two questions.

Mountain(Location)	Height in Meters
K2 (Pakistan/China)	8607
Nanga Parbat (Pakistan)	8126
Everest (Nepal/China)	8850
Cho Oyu (Nepal)	8153

Which mountain is shorter than Cho Oyu?

O K2
O Nanga Parbat ***
O Everest
O Cho Oyu

Lhotse, a mountain in Nepal, is taller than Cho Oyu but shorter than K2. Which could be the correct height in meters of Lhotse?

O 7495
O 8124
O 8511 ***
O 8723

STRAND 4: ORDER, MAGNITUDE, AND ROUNDING
Objectives 4A, 4B, 4C, 4D, 4E, 4F, 4G

2nd Graders

4A: Identify a number larger or smaller than a given set of numbers less than 100.

The chart below shows the length of four animals.

Animal	Length in Inches
Monkey	30
Gibbon	35
Langur	42
Orangutan	49

Which animal was **more** than 40 inches but **less** than 48 inches long?

- ◯ Monkey
- ◯ Gibbon
- ◯ Langur ***
- ◯ Orangutan

Which animal was more than 45 inches long?

- ◯ Monkey
- ◯ Gibbon
- ◯ Langur
- ◯ Orangutan ***

Other questions:

- Identify a number smaller than ___ and larger than ___.
- Identify a number smaller than ___.

Identify a number larger than ___.

Grade 3 CMT – Obj. 4B: Continued

Suzy wants a new pair of shoes. She has $55 to spend. Which pair of shoes costs **more** than the money she has?

O  $45

O  $24

O  $63 ***

 $38

In 1982, between 650 and 750 inches of ran fell on a mountain in Hawaii. How much rain fell that year?

O 550

O 590

O 630

O 720 ***

The table shows the number of pages the third graders read in four months.

Number of Pages Read	
MONTH	PAGES
September	435
October	354
November	762
December	284

During how many months did the third graders read **more** than 440 pages?

O 1 ***

O 2

O 3

O 4

Grade 4 CMT – Obj. 4B: Continued

Neil's pet moon rock weighs 27 pounds. This number is

O a little less than 20

O a little more than 20

O a little less than 30 ***

O a little more than 30

The chart shows the weight of five meat-eating animals.

Animal	Weight in Kilograms
Black Bear	227
Lion	253
Polar Bear	778
Panda	167
Tiger	315

Which animal weighs **less** than the Black Bear?

O Lion

O Polar Bear

O Panda ***

O Tiger

How many animals weigh **more** than the lion?

O 1

O 2 ***

O 3

O 4

Grade 5 CMT – Obj.4C: Continued

Sandra flew between 9,500 miles and 10,600 miles from New York to Melbourne, Australia. Which distance did she fly?

O 11,256 miles
O 10,359 miles ***
O 9,421 miles
O 10,837 miles

Earth's diameter is between 7600 and 8200 miles. What is Earth's diameter?

O 7520 miles
O 8436 miles
O 7926 miles ***
O 10,837 miles

Include types of questions similar to those in the columns marked "Grade 3 CMT" and "Grade 4 CMT."

2nd Graders	Grade 3 CMT	**Grade 4 CMT**	**Grade 5 CMT**

4B: Describe magnitude of decimals (tenths).

The chart shows how much rain fell during a four-day storm. Use the chart to answer the question.

Rainfall on Four Days	
Days	Amount of Rain
Monday	0.4 inches
Tuesday	0.9 inches
Wednesday	0.5 inches
Thursday	0.2 inches

On which day is the **most** rain fall?

◯ Monday
◯ Tuesday ***
◯ Wednesday
◯ Thursday

LuAnn drove 22.8 miles. Which **best** describes this number?

O a little less than 22
O a little more than 22
O a little less than 23 ***
O a little more than 23

Robin walks between 1.7 miles and 2.5 miles every day. How many miles could he walk in one day?

O 1.3
O 1.9 ***
O 2.6
O 2.9

4C: Describe magnitude of decimals.

*Since Grade 6 CMT specifically mentions tenths **AND** hundredths, I am guessing that Grade 5 will still have **mostly tenths but some hundredths also**.*

The table shows how far four people drove on one gallon of gas.

Person	Distance in miles
Mrs. Ethyl	37.3
Mr. Tank	37.5
Ms Gass	37.9
Miss Pump	37.1

Who drove the **farthest**?

O Mrs. Ethyl
O Mr. Tank
O Ms Gass ***
O Miss Pump

How many people drove less than 47.5 miles?

O 1
O 2 ***
O 3
O 4

Listed below are some of the coldest places on Earth where people live. Use the table to answer the question.

Weather Station Location	Average Temp.
Fairbanks, Alaska	25.9 ° F
Hailar, Mongolia	27.7 ° F
Yellowknife, Canada	22.3 ° F
Chita, Russia	27.1 ° F

Which city has an average temperature below 27.5° F and above 26.9° F?

f Yellowknife
g Hailar
h Fairbanks
j Chita ***

2nd Graders	Grade 3 CMT	**Grade 4 CMT**	**Grade 5 CMT**

4B: Describe magnitude of fractions.

Jordan ran $\frac{9}{10}$ of a mile in five minutes. Which **best** describes this distance?

O a little less than a $\frac{1}{2}$ mile
O almost 1 mile ***
O a little less than 2 miles
O almost 3 miles

Ellen picked $\frac{5}{8}$ of a pound of strawberries. This amount is

O a little less than $\frac{1}{2}$
O a little more than $\frac{1}{2}$
O a little more than 1
O a little less than 2

The table shows how much pizza each person ate at a party.

Name of Person	Amount of Pizza
Charlene	$\frac{1}{3}$ of a pizza
Dale	$\frac{1}{6}$ of a pizza
Laurie	$\frac{1}{2}$ of a pizza
Betsy	$\frac{1}{4}$ of a pizza

Who ate the most pizza?

O Charlene
O Dale
O Laurie ***
O Betsy

4D: Describe magnitude of fractions.

The chart below shows the amount of salt used in four different recipes. Use the chart to answer the questions.

Food	Amount of Salt (Tsp)
Snickerdoodles cookies	$\frac{1}{4}$
French Dressing	$\frac{1}{2}$
Stuffed Peppers	$\frac{7}{8}$
Pecan Filling	$\frac{1}{8}$

Which recipe used the most salt?

O Snickerdoodles
O French dressing
O Stuffed Peppers ***
O Pecan Filling

Which recipe used the least amount of salt?

O Snickerdoodles
O French dressing
O Stuffed Peppers
O Pecan Filling ***

Brenda rides her bike between $\frac{1}{2}$ and $\frac{3}{4}$ of an hour every day. Which could be the length of time she rode her bike?

O $\frac{1}{8}$ O $\frac{5}{8}$ ***

O $\frac{3}{8}$ O $\frac{7}{8}$

2nd Graders	Grade 3 CMT	**Grade 4 CMT**	**Grade 5 CMT**

4B: Describe magnitude of mixed numbers.

The table below shows the length of time five men walked on the moon. Use the table to answer the question.

MEN	HOURS
Charles Conrad, Jr.	$7\frac{3}{4}$
Neil Armstrong	$2\frac{1}{2}$
Alan Shepard	$9\frac{1}{3}$
"Buzz" Aldrin	$2\frac{1}{4}$
David R. Scott	$19\frac{1}{8}$

Who walked on the moon for a **shorter** length of time than Neil Armstrong did?

O Charles Conrad, Jr.
O Alan Shepard
O "Buzz" Aldrin ***
O David R. Scott

Joyce buys $5\frac{9}{10}$ pounds of raw meat every week for her pet tiger. Which **best** describes this amount of meat?

O A little less than 15 pounds
O A little less than 16 pounds ***
O A little more than 15 pounds
O A little more than 16 pounds

4D: Describe magnitude of mixed numbers.

Vicki swims between $3\frac{3}{4}$ and $5\frac{1}{2}$ hours every week in her pool. Which could be the length of time she swam?

O $3\frac{1}{4}$ hours
O $3\frac{1}{2}$ hours
O $5\frac{1}{4}$ hours ***
O $5\frac{7}{8}$ hours

Mr. Greenwood bought $3\frac{1}{2}$ pounds of tomatoes.

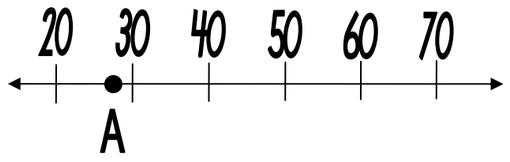
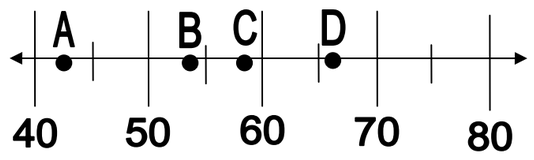
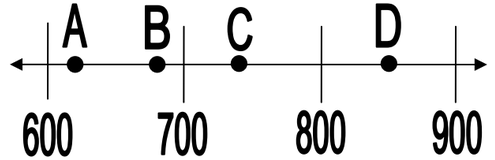
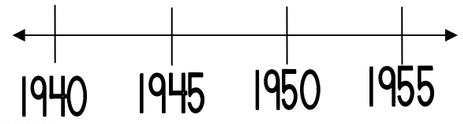
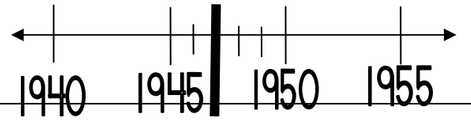
Which amount is closest to $3\frac{1}{2}$?

O $3\frac{7}{8}$
O $3\frac{15}{16}$
O $3\frac{3}{12}$
O $3\frac{8}{14}$ ***

Tom's cat weighs $8\frac{7}{12}$ pounds. Tom's cat weighs

O a little less than 8 pounds
O a little more than 8 pounds
O about 8.5 pounds ***
O a little less than 9 pounds

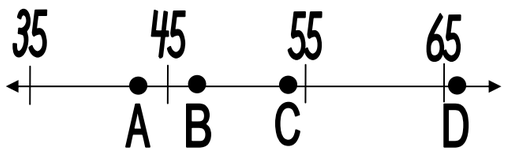
2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
4D: Round whole numbers < 100 in context. Bryce bought 73 baseballs. **About** how many baseballs is that? ◯ 50 ◯ 60 ◯ 70 *** ◯ 80	**4C: Round 2-digit whole numbers in context.** Mr. Jones chopped 79 pieces of wood. This number is **closest** to O 60 (difference of 19) O 65 (difference of 14) O 70 (difference of 9) O 80 (difference of 1) ***	**4C: Round 2- and 3-digit whole numbers in context.** Diana shot 529 arrows into the air. This number is **closest** to O 300 O 400 O 500 *** O 600	**4E: Round whole numbers in context.** The toy store sold 322 hot wheels last month. **About** how many hot wheels is that? O a little less than 300 O a little more than 300 *** O a little less than 400 O a little more than 400
Stephen found the coins below in his drawer at home.  This amount is CLOSEST to ◯ 40¢ ◯ 45¢ ◯ 50¢ ◯ 60¢	Susan is 58 inches tall. **About** how many inches is that? O a little less than 50 O a little less than 60 *** O a little more than 50 O a little more than 60	Amanda drove 427 miles from Washington, D.C. to Boston. **About** how many miles is that? O 420 O 430 *** O 440 O 450	Laurie received a bonus of $8765 in her last paycheck. This amount is **about** O $ 7000 O $ 8000 O $ 9000 *** O $10,000
Sue saw 79 seashells. This number is O a little less than 70 O a little more than 70 O a little less than 80 *** O a little more than 80	Mrs. Nichols can solve 82 math problems in one hour. This number is **about** O 60 O 70 O 80 *** O 90	Will can hold his breath for 53 seconds. This number is O a little less than 50 O a little more than 50 *** O a little less than 60 O a little more than 60	Mrs. Nichols drove 3,488 miles last month. This number is **closest** to O 3300 miles O 3400 miles O 3500 miles *** O 3600 miles
			There were 78,952 people at the ball game. This number is O a little less than 70,000 O close to 80,000 *** O almost 90,000 O a little more than 90,000

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
			4F: Round decimals. • In context? • Tenths only? Grade 6 deals with tenths and hundredths. Katherine drove 7561.2 miles last month in her new Lamborghini. This number is **closest** to O 7561 *** O 7562 O 7568 O 7570 (Without context) The number 25.48, rounded to the nearest tenth, is O 25.4 O 25.5 *** O 25.6 O 25.7
4E: Identify points representing (1- and 2-digit?) whole numbers on a number line and vice versa. Point A is the **closest** to which number on the number line?  ○ 28 *** ○ 31 ○ 39 ○ 42	**4D: Identify points representing 2- and 3-digit whole numbers on a number line and vice versa.** Which number would point C be **closest** to on the number line?  O 59 *** O 53 O 42 O 66	**4D: IDENTIFY points representing 2- and 3-digit whole numbers on a number line and vice versa.** Which point on the number line MOST accurately shows 680?  O A O B O C O D	**Grade 5 CMT:** No identifying of points by multiple choice – Instead, the questions are open-ended. **4G. LOCATE points (whole numbers) on number lines and scales.** **Whole numbers**: 3- and 4-digit numbers? 5-digit? Draw a heavy line through the number line below to show where 1947 would be.  Answer: 

2nd Graders

Obj. 4E: Continued – Whole Numbers

Which letter is **closest** to 47 on the number line?

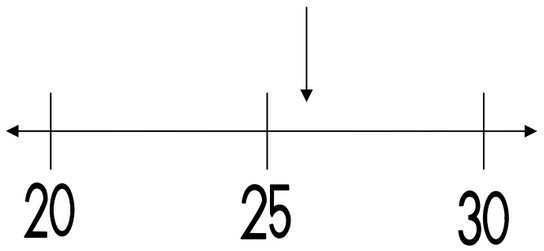


- ◯ A (between 35 and 45)
- ◯ B (between 45 and 50) ***
- ◯ C (closer to 55)
- ◯ D (a little greater than 65)

Try to include open-ended questions:

On the number line below, draw a line where you think 26 would be found.

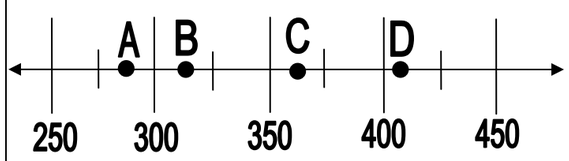
Solution: Close to 25 but between 25 and 30



Grade 3 CMT

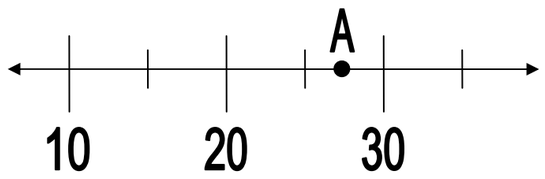
Obj. 4D: Continued – Whole Numbers

The number 362 would be **closest** to which point on the number line?



- O A (between 275 and 300)
- O B (between 300 and 325)
- O C (between 350 and 375) ***
- O D (a little more than 400 – between 400 and 425)

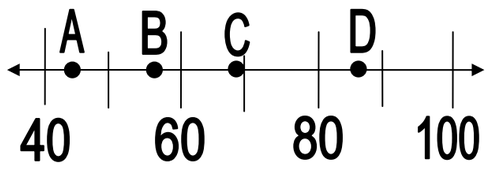
Which number would Point A be **closest** to on the number line?



- O 19
- O 23
- O 27 ***
- O 31

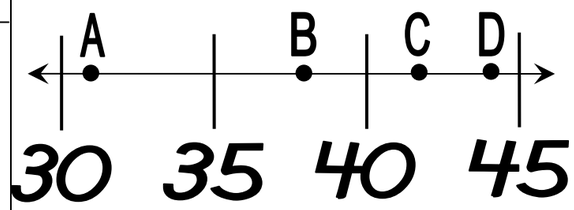
Grade 4 CMT

Obj. 4D: Continued – Whole Numbers



Which point on the number line **most** accurately shows 86?

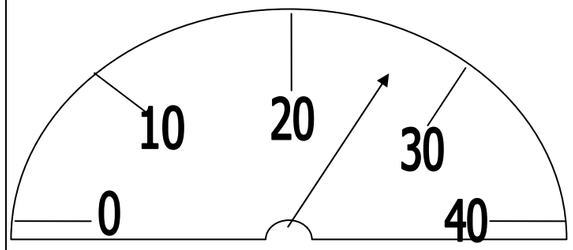
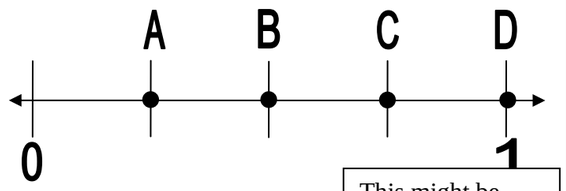
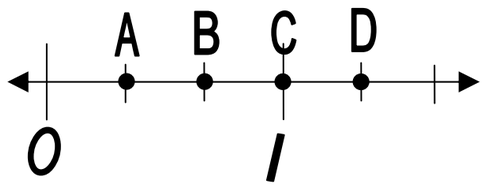
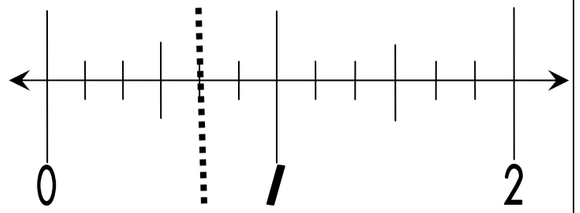
- O A
- O B
- O C
- O D ***



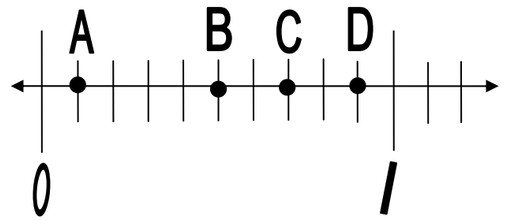
Which letter indicates 42 on the number line below?

- a A
- b B
- c C ***
- d D

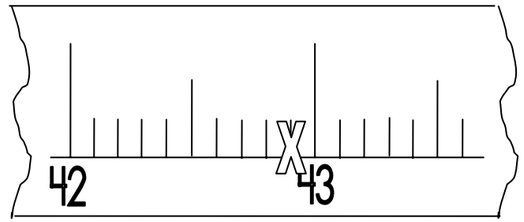
Grade 5 CMT

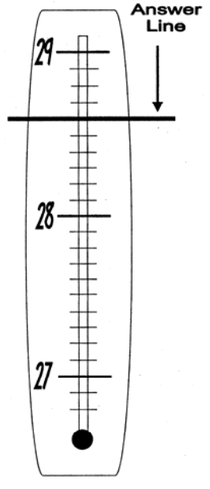
2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
	Obj. 4D (Continued) – Whole Numbers How many miles is the car going on the scale below?  O 10 O 15 O 20 O 25	**4D: Identify points representing fractions (halves, thirds, fourths) on a number line and ice versa.** Which fraction is marked by letter B on the number line below?  O $\frac{1}{2}$ *** O $\frac{3}{4}$ O $\frac{2}{3}$ O $\frac{1}{4}$ This might be beyond the Grade 4 test – $\frac{2}{4}$ might have been the correct answer Which point on the number line shows $\frac{2}{3}$?  O A O B *** O C O D	**4G: Locate points (fractions) on number lines and <u>scales</u>.** Draw a line through the number line to show $\frac{2}{3}$. 

<table>
<tr><th>2nd Graders</th><th>Grade 3 CMT</th><th>Grade 4 CMT</th><th>Grade 5 CMT</th></tr>
<tr><td rowspan="2"></td><td rowspan="2"></td><td>4D: Identify points representing decimals (tenths) on a number line and ice versa.

Which decimal is marked by letter C?
 

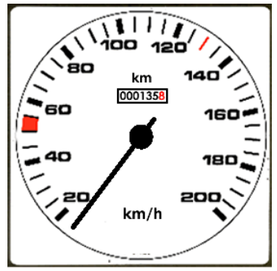
O 0.5
O 0.1
O 0.7 ***
O 0.9</td><td>4G: Locate points including decimals on number lines and scales.

Put an X on the ruler that BEST represents 42.9 centimeters.
 

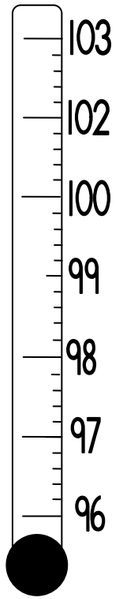
Examples of decimals (hundredths) should have been included.</td></tr>
<tr><td></td><td>Draw a line through the thermometer to show 28.6O.
 

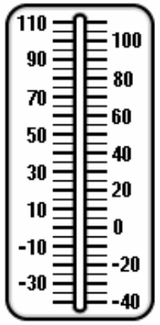
You will find some scales in Objective 23 near the end of this packet.</td></tr>
</table>


seca


km
000135
km/h


MPH


103
102
100
99
98
97
96
%



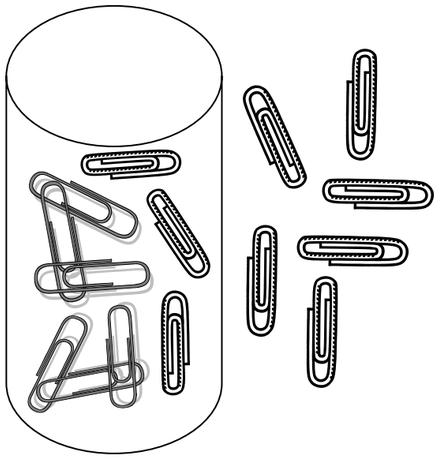
0
10
20
30
40

STRAND 5: MODELS FOR OPERATIONS (Objectives 5A, 5B, 5C)

2nd Graders

5A: Match addition or subtraction number fact sentences with pictures.

Which number fact shows how many paper clips there are altogether?



- ○ 9 + 6 ***
- ○ 9 - 6
- ○ 15 + 6
- ○ 15 -- 9

Grade 3 CMT

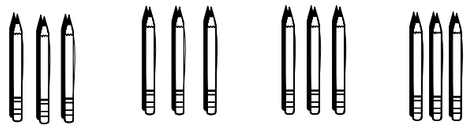
5A: Relate multiplication and division facts to rectangular arrays and pictures (factors of 2, 5, 10?).

Which number fact goes with this picture?

- O 2 + 5
- O 2 × 5 ***
- O 10 - 5
- O 2 + 4

5+5 would not have been a correct answer even if it had been one of the choices because this is a picture of a multiplication array, not an addition picture.

Sue shared 12 pencils with her 4 friends.

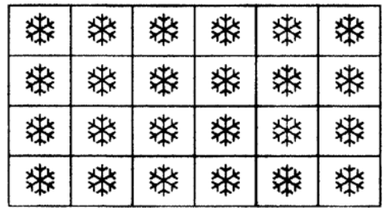


Which fact could be used to find the number of pencils each friend received?

- O 12 ÷ 4 ***
- O 4 x 12
- O 4 + 12
- O 12 - 4

Grade 4 CMT

5A: Identify members of multiplication and division fact families from arrays (factors of 2, 3, 4, 5, and 10)

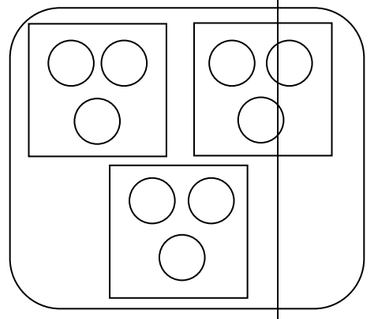


Which fact describes this picture?

- O 4 × 5 = ☐
- O 4 × 6 = ☐ ***
- O 3 × 5 = ☐
- O 4 × 7 = ☐

PICTURE SHOULD BE ABOVE THE QUESTION

Which of the following goes with the picture?



- O 10 ÷ 2 = ☐
- O 15 ÷ 5 = ☐
- O 8 ÷ 4 = ☐
- O 9 ÷ 3 = ☐. ***

Grade 5 CMT

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
5B: Identify or write the appropriate operation or number sentence to solve a story problem. Joshua had 9 pet fish. On his birthday, he got 4 more pet fish. Which number sentence shows how many fish he now has? ○ 9 – 4 = ☐ ○ 9 + 4 = ☐ *** ○ 4 – 9 = ☐ ○ 13 + 4 = ☐	**5B: Identify the appropriate operation or number sentence to solve a story problem.** Last week, Karl bought 27 cupcakes. Today he had 15 cupcakes left. He had eaten the rest of the cupcakes. To find out how many cupcakes were eaten, you could O Divide 15 by 27. O Multiply 27 by 15. O Subtract 15 from 27. *** O Add 27 to 15.	**5B: Identify the appropriate operation or number sentence to solve a story problem (2-digit numbers.)** Melanie had 20 beads. She put 5 beads on each string. Which number sentence should be used to find out how many strings had beads on them? O 20 + 5 = ☐ O 20 – 5 = ☐ O 20 × 5 = ☐ O 20 ÷ 5 = ☐ ***	**5A: Identify the appropriate operation or number sentence to solve a story problem.** For lunch, Kristine ate a chicken leg that had 209 calories and a container of applesauce that had 116 calories. Which number sentence could be used to find out how many calories were in Kristine's lunch? O 209 × 116 = ☐ O 209 ÷ 116 = ☐ O 209 – 116 = ☐ O 209 + 116 = ☐ ***
5C: Write a story problem that matches a given addition number sentence. Write a story problem that can be solved using the number sentence 7 + 3 = ☐. **JOINING MODEL OF ADDITION** Paddy had 7 vacuum cleaners in his closet. He's a little compulsive about germs and actually believes that you can never have too many vacuum cleaners. His friends gave him 3 more vacuum cleaners because, unlike Paddy, they think a little dirt never killed anyone. How many vacuum cleaners is Paddy now proud to own? **COMBINED MODEL OF ADDITION** Paddy has 7 red vacuum cleaners and 3 white vacuum cleaners. (He'd like at least one blue vacuum cleaner, but give him time; he'll probably get that, too.) How many vacuum cleaners does Paddy have?	**5C: Write story problems from addition number sentences.** Write a story problem that can be solved using the number sentence 18 + 4 = ☐ . Sue had 18 peaches. Tammy had 4 peaches. How many peaches did the girls have altogether? Write a story problem that can be solved using the number sentence 25 + 30 = ☐. JOINING MODEL OF ADDITION: Maria has 25 houses. (She is really into real estate!) Last month in a fit of boredom, she bought 30 more houses. How many houses does she now own? (and is she aware that there is help for compulsive shoppers?) COMBINED MODEL OF ADDITION: Maria has 25 Colonial houses and 30 mini-mansions. How many houses does Maria have? (and who cleans all these houses? Not Maria – she's too busy buying more houses.)	**5C: Write a story problem that matches a given addition number sentence. Use 1- and 2-digit numbers for addition.** Write a story problem that can be solved using the number sentence 25 + 50 = ☐. JOINING MODEL OF ADDITION: Dena drove 25 miles to IKEA to buy baby furniture for her new baby. Then she drove 50 miles to Sam's Club to buy diapers for the baby. How many miles did she drive in all? COMBINED MODEL OF ADDITION: Dena has 25 blouses in her summer closet and 50 blouses in her winter. How many blouses does she have altogether?	

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
5C: Write a story problem that matches a given subtraction number sentence. Write a story problem for this number sentence: 5 – 2 = ☐ **TAKE-AWAY MODEL OF SUBTRACTION** Paddy had 5 very old vacuum cleaners. He gave two of them to the junk yard because they weren't good for anything after the way he wore them out with all that vacuuming every day sometimes for 8 or 9 hours. Nobody has that much dirt in his or her house! How many vacuum cleaners does he have left? **COMPARISON MODEL OF SUBTRACTION** Paddy has 5 bright red vacuum cleaners. His friend, Kong, has 2 blue vacuum cleaners because Kong believes in being prepared in case one vacuum cleaner breaks. How many more vacuum cleaners does Paddy have than Kong does? (And where'd he get those blue ones, anyway?) **MISSING ADDEND MODEL OF SUBTRACTION** Paddy had 5 vacuum cleaners in the upstairs closet. He brought 2 of them downstairs. How many vacuum cleaners did he leave in the upstairs closet? (When's he going to start getting a life?)	**5C: Write story problems from subtraction number sentences.** Write a story problem that can be solved using the number sentence 9 – 6 = ☐. *Joe had 9 books to read. He finished 6 books. How many more books does Joe have to read?*	**5C: Write as story problem that matches a given subtraction number sentence. Use 1- and 2-digit numbers for subtraction.** Write a story problem that can be solved using the number sentence 82 – 36 = ☐ . TAKE-AWAY MODEL OF SUBTRACTION: *Michele had 82 exotic cars in every make, model, and color you could imagine. She gave 36 Lamborghinis from her collection to Maria (so she could drive around in comfort looking for more houses to buy). How many cars did Michele keep for herself?* COMPARISON MODEL OF SUBTRACTION: *Diane has 82 Masseratis. Michele has only (ONLY?) 36 Masseratis in her collection. How many more Masseratis does Diane have? (and who's going to pay for all the insurance on these cars, I'd like to know! Plus you'd practically have to keep a mechanic on a retainer fee to keep them all running smoothly in this wretched New England weather.)* MISSING ADDEND MODEL OF SUB: *Maria has 82 single car garages. She has 36 Aston Martins to put into some of the garages. How many more cars does she need to fill the rest of the garages?*	

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
		5C: Write a story problem that matches a given multiplication number sentence. Use 1-digit numbers for multiplication. Write a story problem that can be solved using the number sentence $5 \times 6 = \square$. REPEATED ADDITION MODEL OF MULTIPLICATION: While cleaning out her closet, Emily found 5 old purses. Inside each purse were 6 magic lamps. How many magic lamps did Emily find? (and how many wishes will she be getting?) ARRAY MODEL OF MULTIPLICATION: Emily decided to have her closet floor retiled. Her closet is 5 feet long and 6 feet wide. How many one-foot square tiles will Emily need to retile the closet floor? (That's a lot of closet to clean. No wonder she kept putting it off.) CARTESIAN PRODUCT MODEL OF MULTIPLICATION: Emily decided to wish for some new clothes. Suddenly, just like that, right out of thin air, she had 5 tops and 6 skirts hanging in her clean, retiled closet. How many outfits can Emily now make with her new clothes?	**5B: Write story problems from multiplication…number sentences using 1- and 2-digit numbers.** Write a story problem that can be solved using the number sentence 52 x 9 = □. REPEATED ADDITION MODEL OF MULTIPLICATION: Dale bought a new house with 52 closets. (She had to look a LONG time to find this house.) As a house-warming gift, Betsy put 9 pots of gold in each closet. How many pots of gold did Dale receive? (and don't you wish you had a friend like Betsy?) ARRAY MODEL OF MULTIPLICATION: Dale had a beautiful living room floor in her new house. It was 52 feet by 9 feet and covered with solid gold, one-foot square tiles. How many solid gold tiles were on Dale's floor? (When she remodels the living room floor, I want the tiles she throws away. Do you suppose they're slippery when wet? Do I care?) CARTESIAN PRODUCT MODEL OF MULTIPLICATION: To celebrate the purchase of her new home, Dale went to the local ice cream store. There were 52 flavors of ice cream available with 9 different toppings. How many ice cream sundaes could Dale order if every sundae was a different flavor and had a different topping on it?

2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
			5C: Write story problems from division number sentences, using 1- and 2-digit numbers. *Could the division sentence have both numbers be 2-digit numbers? Probably (Example: 90 ÷ 15 = ☐.)* Write a story problem that can be solved using the number sentence 56 ÷ 7 = ☐. REPEATED SUBTRACTION MODEL OF DIVISION: Alyce owned 56 Lear jets. The hangar in her back yard was getting crowded, and the jets were last year's models; Alyce decided to give 7 Lear jets to each person who could guess her weight in grams. How many people will get Lear jets from Alyce? PARTITION MODEL OF DIVISION: Brennan had 56 big screen TVs in his garage. He just received a bunch of Lear Jets (not to mention some really dirty looks from Alyce because he figured out how much she weighs) and needs room in his garage for those jets. He decided to give away all his big screen TV's (we're talking really big screens, here!) to 7 people that he knows watch way too much TV and hardly ever read a book. How many TV's will these basically illiterate people receive from Brennan? RATIO MODEL OF DIVISION: Deb and Patti were shopping for new clothes. For every 7 outfits that Deb bought, Patti bought 56 outfits. At this rate, how many outfits did Patti buy for each outfit that Deb bought?

STRAND 6: BASIC FACTS (Objectives 6A, 6B)

2nd Graders

6A: Use objects to find addition facts to 18.

THIRD GRADERS (in September) WERE GIVEN 20 COUNTERS TO USE DURING THE 3RD GENERATION CMT.

You many use your counters to help you solve this problem.

8 + 4 = ☐

- ◯ 10
- ◯ 12 ***
- ◯ 14
- ◯ 15

6B: Use objects to find subtraction facts to 18.

You many use your counters to help you solve this problem.

13 - 9 = ☐

- ◯ 7
- ◯ 6
- ◯ 4 ***
- ◯ 3

Grade 3 CMT

6A: Add and subtract facts to 18.

Problems will appear both horizontally and vertically. There are no grid-in items on the Grade 3 and Grade 4 Math CMT, but grid-in items will continue to be found in the Grades 5-8 CMTs.

$$\begin{array}{r} 9 \\ \underline{-3} \end{array}$$

- O 8
- O 6 ***
- O 7
- O 4

8 + 5 =

- O 15
- O 14
- O 13 ***
- O 12

Grade 4 CMT

Grade 5 CMT

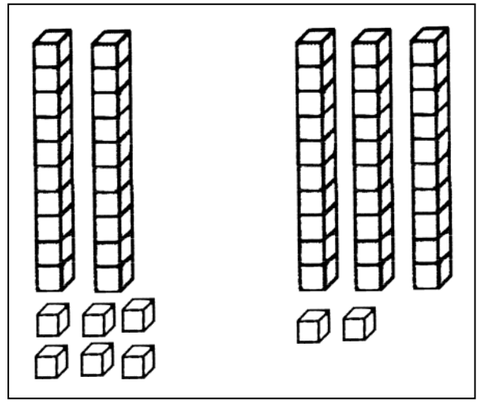
2nd Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
	6B: Multiply and divide by 2, 5, and 10. 4 × 5 O 10 O 15 O 12 O 20 *** 6 × 10 = O 60 *** O 600 O 610 O 66 $2\overline{)16}$ O 6 O 8 *** O 7 O 9 45 ÷ 5 = O 6 O 7 O 8 O 9 ***	**6A: Find the missing product in a multiplication equation where one factor is 2, 3, 4, 5 and 10.** Solve this problem. 4 x 8 = O 24 O 32 *** O 40 O 48 ***Also practice problems written vertically.*** **6B: Find the missing factor in a division equation where one factor is 2, 3, 4, 5 and 10.** Solve this problem. 36 ÷ 4 = O 6 O 7 O 8 O 9 *** ***Also practice problems written as*** $4\overline{)36}$ Solve this problem: $3\overline{)21}$ O 5 O 6 O 7 *** O 8	**6A: Multiply and divide facts.** 8 x 7 = ☐ 0 0 5 6 ● ● ⓪ ⓪ ① ① ① ① ② ② ② ② ③ ③ ③ ③ ④ ④ ④ ④ ⑤ ⑤ ● ⑤ ⑥ ⑥ ⑥ ● ⑦ ⑦ ⑦ ⑦ ⑧ ⑧ ⑧ ⑧ ⑨ ⑨ ⑨ ⑨ *Also practice problems written vertically.* 73. $6\overline{)48}$ *Also practice problems written with ÷* 0 0 0 8 ● ● ● ⓪ ① ① ① ① ② ② ② ② ③ ③ ③ ③ ④ ④ ④ ④ ⑤ ⑤ ⑤ ⑤ ⑥ ⑥ ⑥ ⑥ ⑦ ⑦ ⑦ ⑦ ⑧ ⑧ ⑧ ● ⑨ ⑨ ⑨ ⑨

STRAND 7: COMPUTATION WITH WHOLE NUMBERS AND DECIMALS (Objectives 7A, 7B, 7C)

2nd Graders

7A: Use bean sticks or other base ten materials to ADD 1- and 2-digit whole numbers WITHOUT regrouping.

Use the pictures to find 26 + 32.



O 85

O 58 ***

O 49

O 13

Grade 3 CMT

7A: SUBTRACT 1- and 2-digit numbers WITHOUT regrouping.

Solve this problem.

17 - 2 =

O 10

O 12

O 15 ***

O 19

Solve this problem.

$$\begin{array}{r} 58 \\ -\ 23 \\ \hline \end{array}$$

O 34

O 35 ***

O 81

O 82

Grade 4 CMT

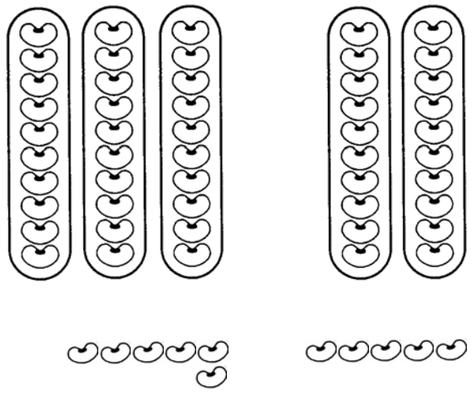
Grade 5 CMT

STRAND 7: COMPUTATION WITH WHOLE NUMBERS AND DECIMALS (Objectives 7A, 7B, 7C)

2nd Graders

7A. (Continued) Use bean sticks or other base ten materials to add 1- and 2-digit numbers WITH regrouping.

Use the materials to find 36 + 25.



O 97
O 16
O 61 ***
O 51

Grade 3 CMT

7A/B: Add 1- and 2-digit numbers WITH and WITHOUT regrouping.

Solve this problem.

73 + 9 =

O 82 ***
O 92
O 80
O 76

Solve this problem.

36
+49

O 73
O 85 ***
O 75
O 83

Solve this problem.

42 + 31 =

O 11
O 55
O 64
O 73 ***

Grade 4 CMT

7A: Add and subtract 2- and 3-digit numbers and money amounts less than $10.00.

Solve this problem.

236
+ 86

O 150
O 250
O 312
O 322 ***

Solve this problem.

$5.00 - 2.68 =

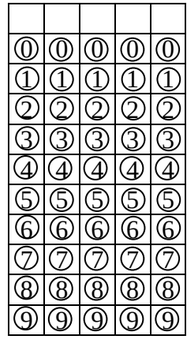
O $2.31
O $2.32 ***
O $3.42
O $3.68

Grade 5 CMT

7A. Add and subtract 2-, 3-, and 4-digit whole numbers and money amounts less than $100.00 (expressed with decimal notation.)

Solve this problem. Record and bubble in your answer.

268
523
+ 391



Solve this problem. Record and bubble in your answer.

803 – 57 =

Solve this problem. Record and bubble in your answer.

$45.87
-26.32

Solve this problem. Record and bubble in your answer.

5084 + 293 =

<table>
<tr><th>2nd Graders</th><th>Grade 3 CMT</th><th>Grade 4 CMT</th><th>Grade 5 CMT</th></tr>
<tr><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2"></td><td>7B: Multiply and divide multiples of 10 and 100 by 10 and 100. [Vertical and Horizontal Problems]

40 x 10 =
O 4
O 40
O 400 ***
O 410</td></tr>
<tr><td>700 ÷ 100 =
O 7 ***
O 70
O 700
O 7,700</td></tr>
<tr><td rowspan="2"></td><td rowspan="2"></td><td>7B: Multiply and divide 2-digit whole numbers by one digit. [Factors of 2, 3, 4, 5]

Problems will be written in both horizontal and vertical form for multiplication; see second example below for division forms
.
Solve this problem.
38 × 4 =
O 42
O 143
O 152 ***
O 1232

Solve this problem.
$4\overline{)84}$
O 11
O 12
O 21
O 22

Other examples:
$2\overline{)26}$ $3\overline{)39}$ $4\overline{)84}$
$2\overline{)64}$ $3\overline{)90}$ $4\overline{)44}$

Maybe, not sure if this form will appear on CMT:
66 ÷ 3 48 ÷ 2 48 ÷ 4</td><td>7C: Multiply and divide 2- and 3-digit whole numbers and money amounts less than $10.00 by a 1-digit number.

Answers are recorded on a grid. See Objective 7a (Grade 5 CMT) for an example of a grid.
Solve this problem. 28 × 7 =
Solve this problem. $8\overline{)576}$
Solve this problem. 84 ÷ 7 =
Solve this problem. $3.87 × 9</td></tr>
</table>

STRAND 8: COMPUTATION WITH FRACTIONS (Objective 8A)

2ND Graders	Grade 3 CMT	Grade 4 CMT	Grade 5 CMT
		8A: Add and subtract fractions with like denominators. $\frac{7}{8} - \frac{5}{8} =$ O $\frac{1}{4}$ *** O $\frac{1}{2}$ O $\frac{3}{8}$ O $\frac{12}{16}$	**8A: Add and subtract fractions and mixed numbers with like denominators.** $\frac{7}{8} - \frac{3}{8} =$ O $\frac{5}{8}$ O $\frac{1}{2}$ *** O $\frac{4}{16}$ O $\frac{3}{4}$
		$\frac{3}{6}$ $+\frac{2}{6}$ O $\frac{1}{6}$ O $\frac{5}{6}$ *** O $\frac{1}{12}$ O $\frac{5}{12}$	$9\frac{2}{6}$ $-3\frac{1}{6}$ O $6\frac{1}{6}$ *** O $6\frac{1}{2}$ O $6\frac{5}{6}$ O 7
			$7\frac{3}{4} + 1\frac{1}{4} =$ O 8 O $8\frac{2}{4}$ O $8\frac{4}{8}$ O 9 ***