Part I: Grade 3

- Test Blueprint
- Test Content
- Sample Items
- Vocabulary List

EDITOR'S NOTE: Some scored student work may contain labeling elements used when the items were pilot tested. These labeling elements are separate and distinct from and are not a part of the test items themselves.

Connecticut Mastery Test – Fourth Generation

Mathematics Grade 3 Test Blueprint

Content Standards and Strands	# of multiple-choice items	# of open-ended items
Numerical and Proportional Reasoning		
1. Place Value	6	
2. Pictorial Representations of Numbers	4	2
3. Equivalent Fractions, Decimals and Percents	NT	NT
4. Order, Magnitude and Rounding of Numbers	6	
5. Models for Operations	4	2
6. Basic Facts	6	
7. Computation with Whole Numbers and Decimals	6	
8. Computation with Fractions and Integers	NT	
9. Solve Word Problems	6	
10. Numerical Estimation Strategies	4	
11. Estimating Solutions to Problems	4	
12. Ratios and Proportions	NT	NT
13. Computation with Percents	NT	NT
Geometry and Measurement		
14. Time	6	
15. Approximating Measures	6	
16. Customary and Metric Measures	3	3
17. Geometric Shapes and Properties	3	3
18. Spatial Relationships	NT	NT
Working with Data: Probability and Statistics		
19. Tables, Graphs and Charts	4	2
20. Statistics and Data Analysis	NT	NT
21. Probability	4	
24. Classification and Logical Reasoning	2	2
Algebraic Reasoning: Patterns and Functions		
22. Patterns	2	2
23. Algebraic Concepts	NT	NT
Integrated Understandings		
25. Mathematical Applications		2
TOTAL	**76**	**18**

* NT = Strand not tested at this grade level.

Connecticut Mastery Test – Fourth Generation

Mathematics Grade 3 Content

Strand	Concepts/Skills Assessed
1. Place Value	A. Solve problems involving 1 MORE/LESS or 10 MORE/LESS using 2-digit numbers. B. Identify alternative forms of expressing 3-digit whole numbers using expanded notation. C. Identify alternative forms of expressing 2-digit whole numbers using regrouping. D. Use place value concepts to identify and compare the magnitude and value of digits in 2- and 3-digit numbers.
2. Pictorial Representation of Numbers	A. Relate whole numbers to pictorial representations of base ten blocks and vice versa. B. Identify fractional parts of regions and sets using pictures and vice versa. C. Label and/or shade fractional parts of regions and sets.
3. Equivalent Fractions, Decimals and Percents	Not tested
4. Order, Magnitude and Rounding of Numbers	A. Order 2- and 3-digit whole numbers. B. Describe magnitude of 2- and 3-digit whole numbers. C. Round 2-digit whole numbers in context. D. Identify points representing 2- and 3-digit whole numbers on a number line and vice versa.
5. Models for Operations	A. Relate multiplication and division facts to rectangular arrays and pictures. B. Identify the appropriate operation or number sentence to solve a story problem. C. Write story problems from addition or subtraction number sentences.
6. Basic Facts	A. Add and subtract facts to 18. B. Multiply and divide by 2, 5 and 10.
7. Computation with Whole Numbers and Decimals	A. Add and subtract 1- and 2-digit whole numbers without regrouping. B. Add 1- and 2-digit whole numbers with regrouping.
8. Computation with Fractions and Integers	Not tested
9. Solve Word Problems	A. Solve simple story problems involving addition (with/without regrouping) or subtraction (without regrouping). B. Solve simple story problems involving addition (with/without regrouping) or subtraction (without regrouping) with extraneous information.
10. Numerical Estimation Strategies	A. Identify the best expression to find an estimate.
11. Estimating Solutions to Problems	A. Identify a reasonable estimate to a problem.
12. Ratios and Proportions	Not tested
13. Computation with Percents	Not tested
14. Time	A. Tell time to the nearest hour, half-hour and quarter-hour using analog and digital clocks. B. Solve problems involving time, elapsed time (15-minute increments) and calendars.

Strand	Grade 3 Concepts/Skills Assessed
15. Approximating Measures	A. Estimate lengths and areas by comparing.
16. Customary and Metric Measures	A. Measure lengths to the nearest inch or centimeter. B. Draw lengths to the nearest inch or centimeter. C. Identify appropriate customary or metric units of measure for a given situation (inches, feet, centimeters and meters).
17. Geometric Shapes and Properties	A. Identify and recognize 2-dimensional geometric shapes and figures, including number of angles and sides of polygons. B. Draw 2-dimensional geometric shapes and figures.
18. Spatial Relationships	Not tested
19. Tables, Graphs and Charts	A. Identify correct information from tables, bar graphs, pictographs and charts. B. Create bar graphs and pictographs from data in tables and charts.
20. Statistics and Data Analysis	Not tested
21. Probability	A. Identify correct solutions to problems involving elementary notions of probability.
22. Patterns	A. Extend or complete patterns, or identify rules using numbers and attributes. B. Extend or complete patterns and state rules using numbers and attributes.
23. Algebraic Concepts	Not tested
24. Classification and Logical Reasoning	A. Identify objects that are the same or different by one attribute. B. Sort objects into 2 groups by a common attribute.
25. Mathematical Applications	A. Solve extended numerical and statistical problems.

GRADE 3 SAMPLE ITEMS

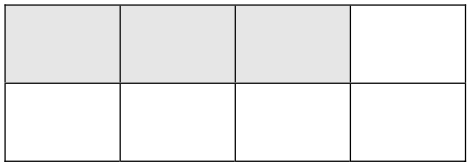
1. Place Value - MC

The value of 79 would change by how much if the 7 was replaced by a 5?

- ○ 2
- ○ 5
- ◉ 20
- ○ 50

2. Pictorial Representations of Numbers - MC

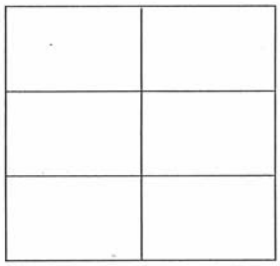
What part of this shape is shaded?



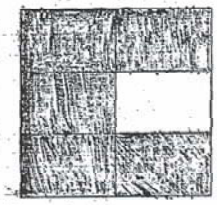
- ○ $\frac{1}{8}$
- ○ $\frac{1}{3}$
- ◉ $\frac{3}{8}$
- ○ $\frac{3}{5}$

2. Pictorial Representations of Numbers - OE

Shade in $\frac{5}{6}$ of the figure.



S1A Shade in $\frac{5}{6}$ of the figure.



1

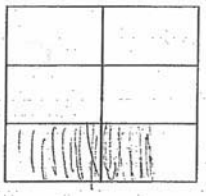
S1B Shade in $\frac{5}{6}$ of the figure.

1

S1C Shade in $\frac{5}{6}$ of the figure.

1

S1D Shade in $\frac{5}{6}$ of the figure.



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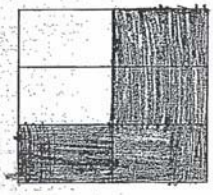
S1E Shade in $\frac{5}{6}$ of the figure.



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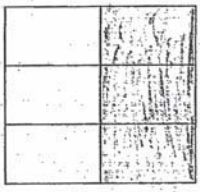
S1F Shade in $\frac{5}{6}$ of the figure.



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4. Order, Magnitude and Rounding of Numbers - MC

Maria and her sister baked 48 cookies. Which number is **closest** to 48?

- ○ 60
- ⊙ 50
- ○ 40
- ○ 30

5. Models for Operations - MC

Malik has 12 animal books and 26 comic books. Which number sentence is best to use to find out how many **more** comic books he has than animal books?

- ○ $12 + 26 = \square$
- ⊙ $26 - 12 = \square$
- ○ $12 \times 26 = \square$
- ○ $26 \div 12 = \square$

5. Models for Operations - OE

7 Write a story problem that can be solved using the number sentence

$28 + 9 = \square$.

S1A Write a story problem that can be solved using the number sentence

$28 + 9 = \square$.

Pam had 28 chapter books she bought 9 more how many does she have now?

28+9=37 books

2

S1B Write a story problem that can be solved using the number sentence

$28 + 9 = \square$.

Kelly has 28 marbls. Michelle gives her 9 more. Now Kelly has 37 marabls.

2

S1C Write a story problem that can be solved using the number sentence

$28 + 9 = \square$.

I have 28 cookies. Kyle gave me 9 cookies. How many cookies do I have in all.

$28+9=37$

2

S1D Write a story problem that can be solved using the number sentence

$28 + 9 = \square$.

One day this little boy had 28 mabels and his frie gave him 9 more. So now the litle boy has 36 mabl

1

S1E Write a story problem that can be solved using the number sentence

$28 + 9 = \square$.

One day I went to the store a bought 28 pictures only I wanted 37. How many more pictures would I have to buy to get 37?

1

S1F Write a story problem that can be solved using the number sentence

$28 + 9 = \square$.

There were 28 mice eating chees 9 left. How many mice are left?

1

S1I Write a story problem that can be solved using the number sentence

$28 + 9 = \square$.

One hot day I went in the pool I counted up to 37 I said hey mom! I know what 28+9=, She said what, I said 37.

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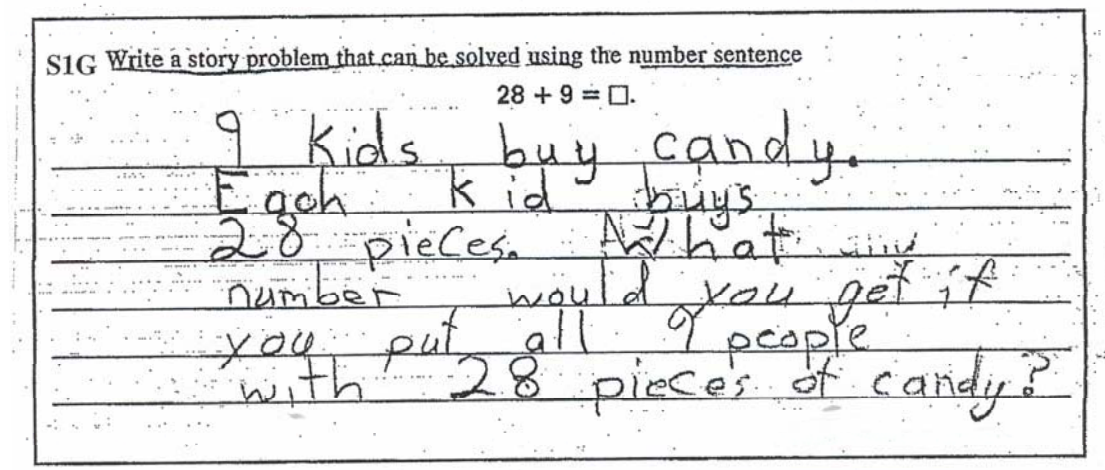

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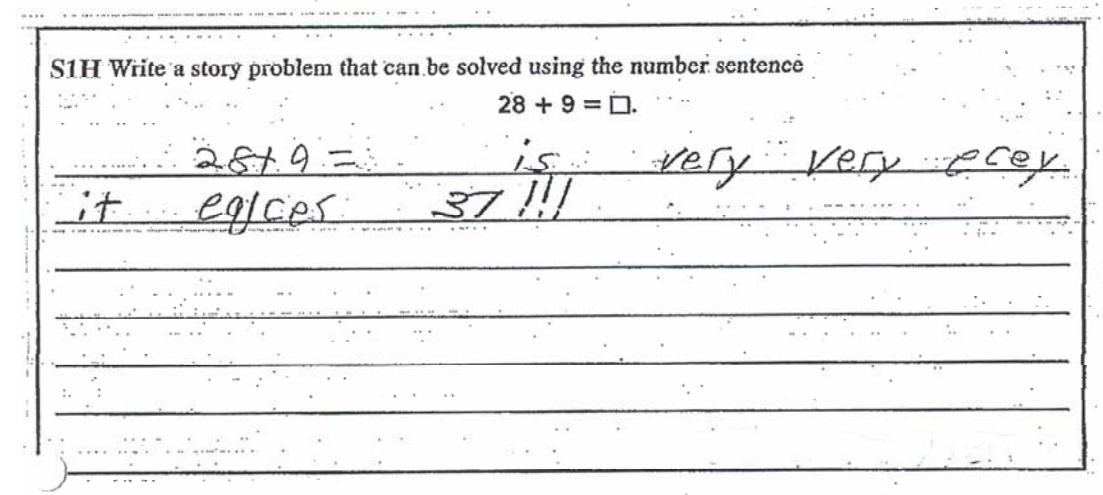

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6. Basic Facts - MC

$2\overline{)\,18}$

- ○ 7
- ○ 8
- ◉ 9
- ○ 16

7. Computation with Whole Numbers and Decimals - MC

58 + 25 =

- ○ 33
- ○ 73
- ⊙ 83
- ○ 84

9. Solve Word Problems - MC

Jon had 56 baseball cards. He gave 23 of them to his brother. How many baseball cards does Jon have left?

- ○ 23
- ⊙ 33
- ○ 34
- ○ 79

10. Numerical Estimation Strategies - MC

Kim wants to subtract 285 from 411. Which of the following would be **best** for Kim to use to **estimate** the answer?

- ○ 400 – 200
- ⊙ 400 – 300
- ○ 500 – 200
- ○ 500 – 300

11. Estimating Solutions to Problems - MC

Ms. Parker bought food for $18. She gave the cashier $50. **About** how much change did the cashier give Ms. Parker?

- ⊙ $30
- ○ $40
- ○ $60
- ○ $70

14. Time - MC

Carl's bedtime was at 9:00. Which clock shows that time?

○ 

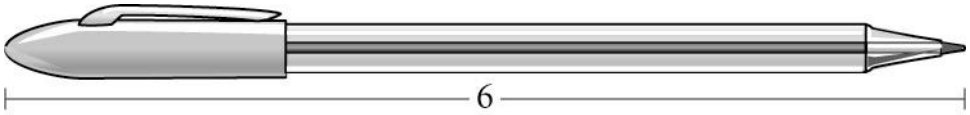
⊙ 

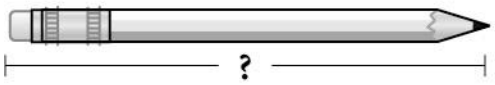
○ 

○ 

15. Approximating Measures - MC

The pen is 6 units long.



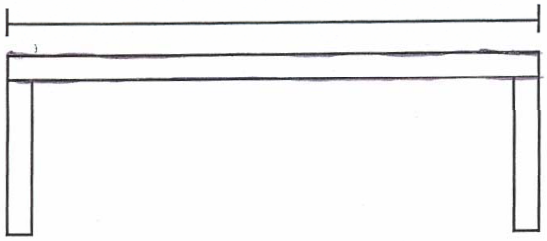


About how many units long is the pencil?

○ 2
⊙ 3
○ 4
○ 5

16. Customary and Metric Measures - MC

Use your ruler to measure the length of the table in the picture to the **nearest inch**.



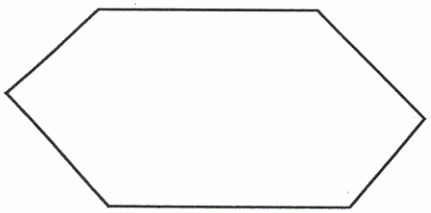
- ○ 6 inches
- ○ 5 inches
- ○ 4 inches
- ◉ 3 inches

16. Customary and Metric Measures - OE

Draw a line segment that is 12 centimeters long.

17. Geometric Shapes and Properties - MC

How many sides does this figure have?



- ○ 4
- ○ 5
- ◉ 6
- ○ 7

17. Geometric Shapes and Properties - OE

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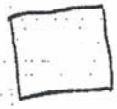
S-2 Draw a closed shape that has **exactly** 4 sides.

S2A Draw a closed shape that has **exactly 4** sides.



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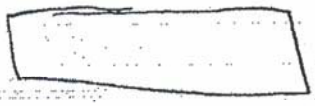
S2B Draw a closed shape that has **exactly 4** sides.



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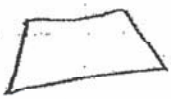
S2C Draw a closed shape that has **exactly 4** sides.



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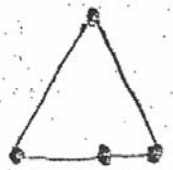
S2D Draw a closed shape that has **exactly** 4 sides.



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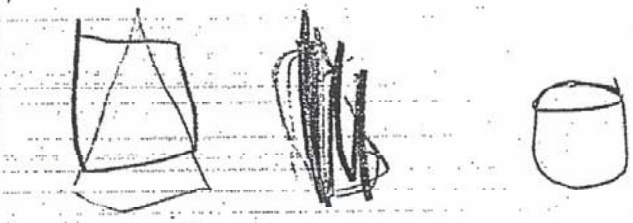
S2E Draw a closed shape that has **exactly** 4 sides.



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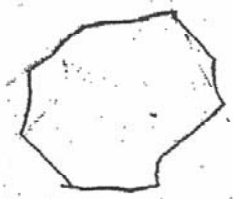
S2F Draw a closed shape that has **exactly** 4 sides.



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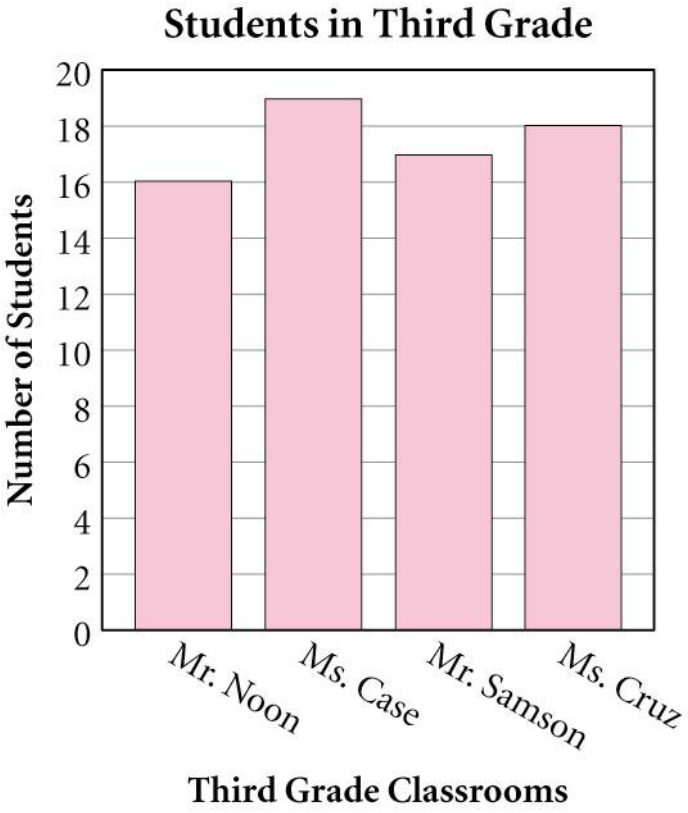
19. Tables, Graphs and Charts - MC

The bar graph below shows the number of students in each third grade class.



How many students are in Mr. Samson's class?

- ○ 16
- ◉ 17
- ○ 18
- ○ 19

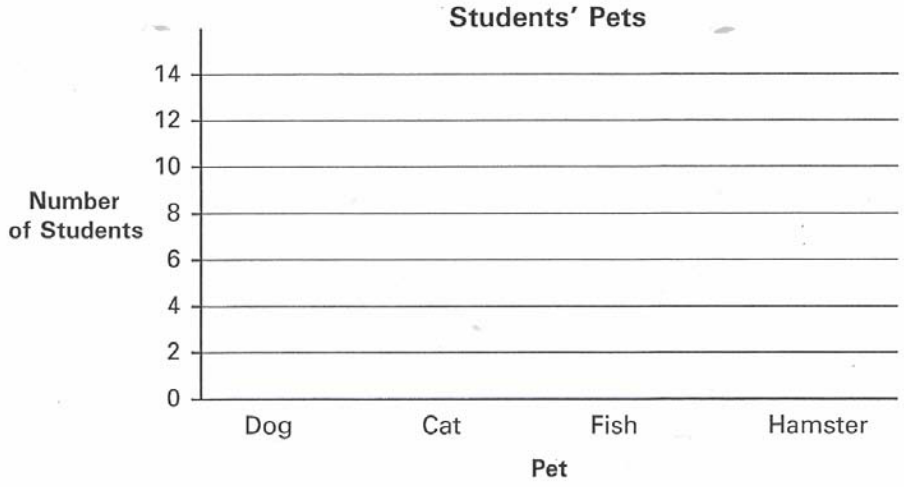
19. Tables, Graphs and Charts - OE

040757

S-6 Mr. Newman's class talked about the pets they own. The number of students who own each kind of pet is shown below. Complete the **bar** graph to show the same information.

Students' Pets

Pet	Number of Students
Dog	8
Cat	12
Fish	6
Hamster	3

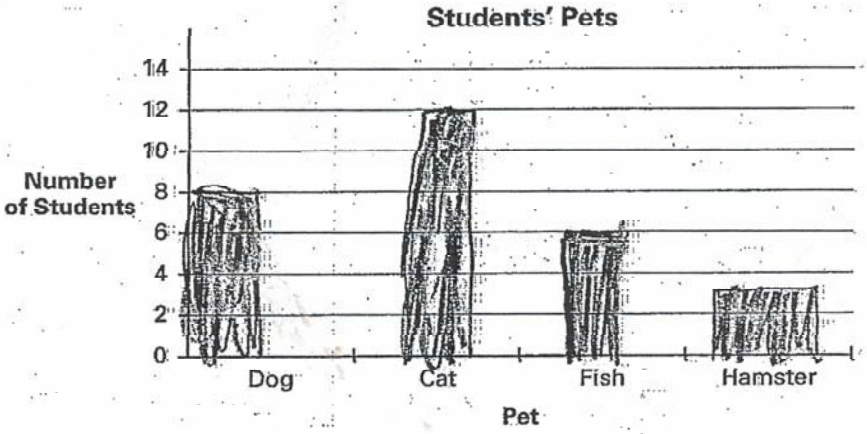


S6A Mr. Newman's class talked about the pets they own. The number of students who own each kind of pet is shown below. Complete the **bar** graph to show the same information.

Students' Pets

Pet	Number of Students
Dog	8
Cat	12
Fish	6
Hamster	3

2

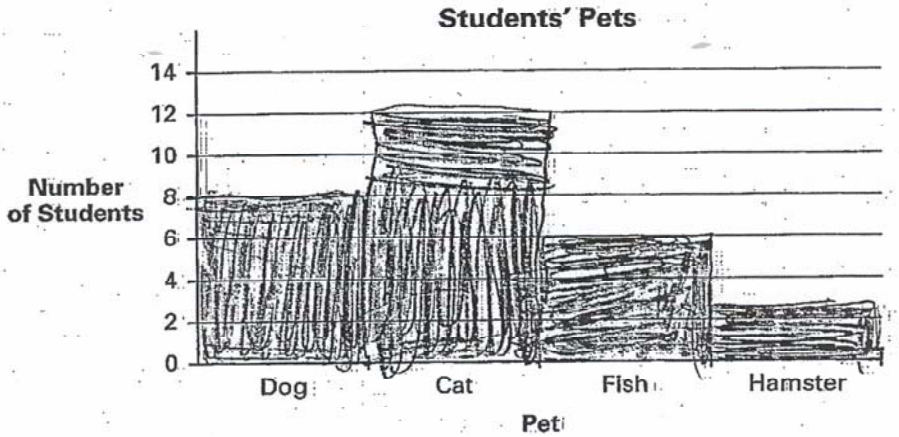


S6B Mr. Newman's class talked about the pets they own. The number of students who own each kind of pet is shown below. Complete the **bar** graph to show the same information.

Students' Pets

Pet	Number of Students
Dog	8
Cat	12
Fish	6
Hamster	3

2

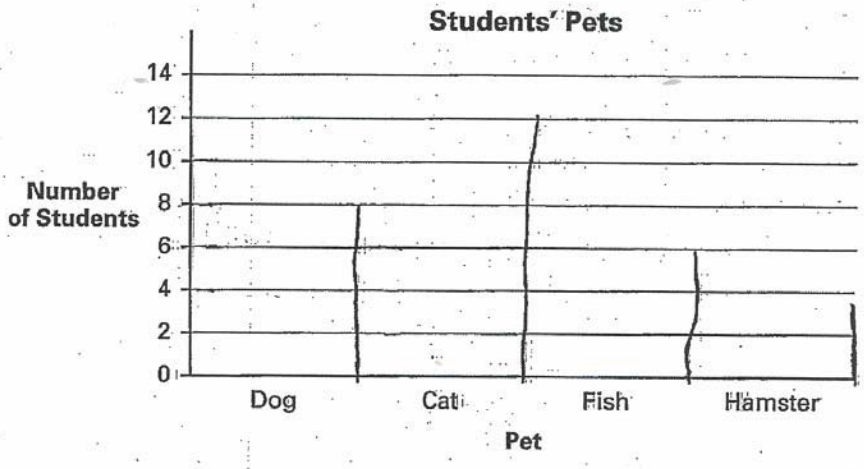


S6C Mr. Newman's class talked about the pets they own. The number of students who own each kind of pet is shown below. Complete the bar graph to show the same information.

Students' Pets

Pet	Number of Students
Dog	8
Cat	12
Fish	6
Hamster	3

2

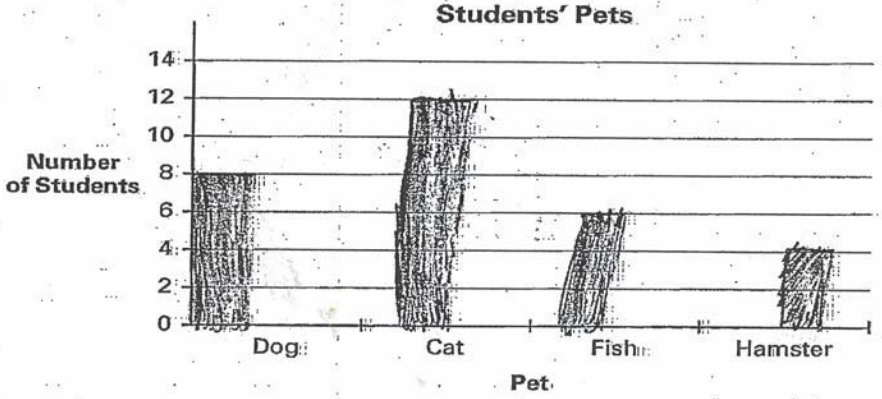


S6D Mr. Newman's class talked about the pets they own. The number of students who own each kind of pet is shown below. Complete the bar graph to show the same information.

Students' Pets

Pet	Number of Students
Dog	8
Cat	12
Fish	6
Hamster	3

1

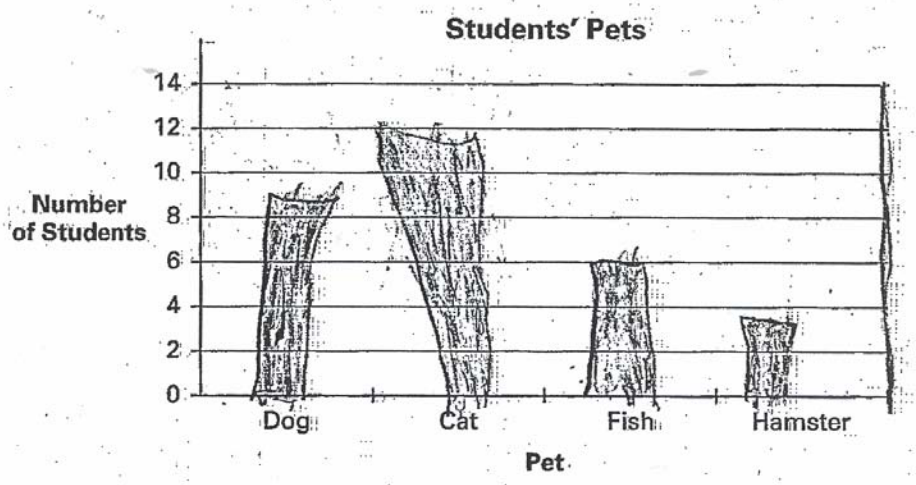


S6E Mr. Newman's class talked about the pets they own. The number of students who own each kind of pet is shown below. Complete the **bar** graph to show the same information.

Students' Pets

Pet	Number of Students
Dog	8
Cat	12
Fish	6
Hamster	3

1

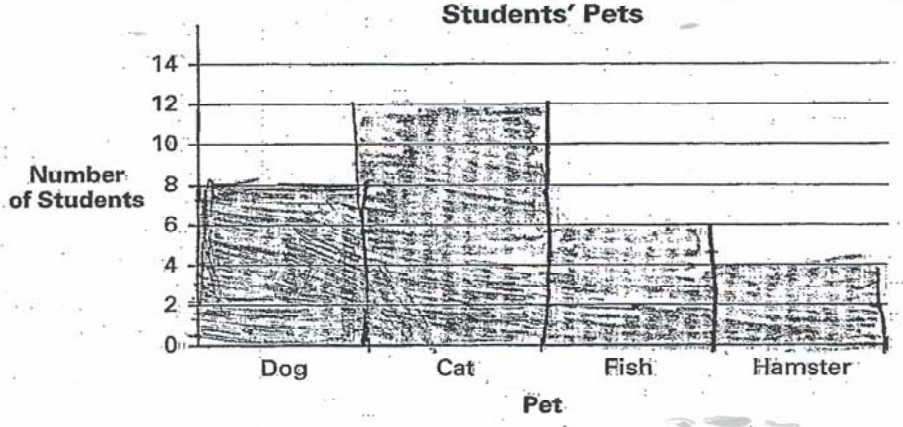


S6F Mr. Newman's class talked about the pets they own. The number of students who own each kind of pet is shown below. Complete the **bar** graph to show the same information.

Students' Pets

Pet	Number of Students
Dog	8
Cat	12
Fish	6
Hamster	3

1



S6G Mr. Newman's class talked about the pets they own. The number of students who own each kind of pet is shown below. Complete the bar graph to show the same information.

Students' Pets

Pet	Number of Students
Dog	8
Cat	12
Fish	6
Hamster	3

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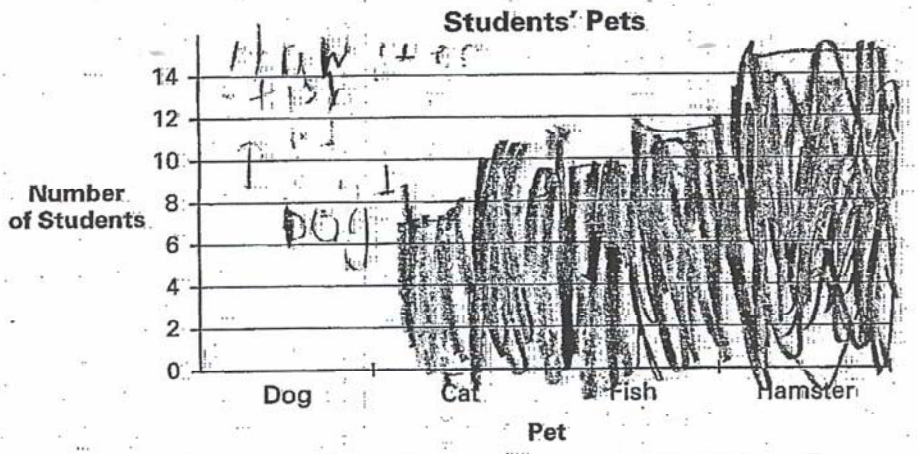

S6H Mr. Newman's class talked about the pets they own. The number of students who own each kind of pet is shown below. Complete the bar graph to show the same information.

Students' Pets

Pet	Number of Students
Dog	8
Cat	12
Fish	6
Hamster	3

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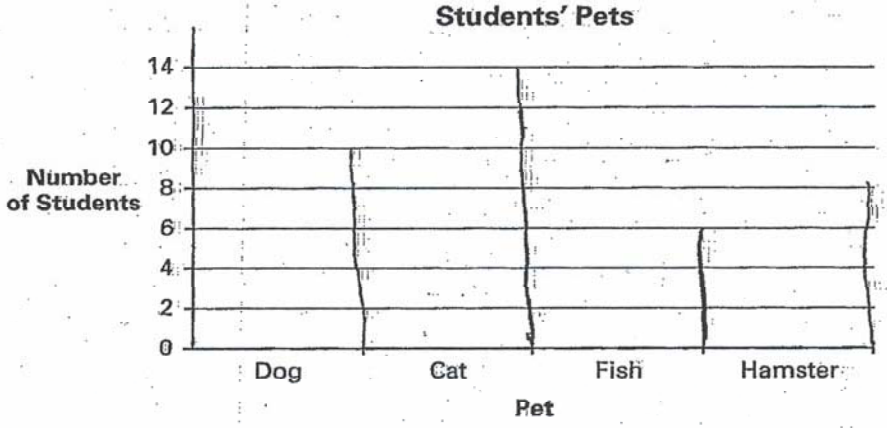
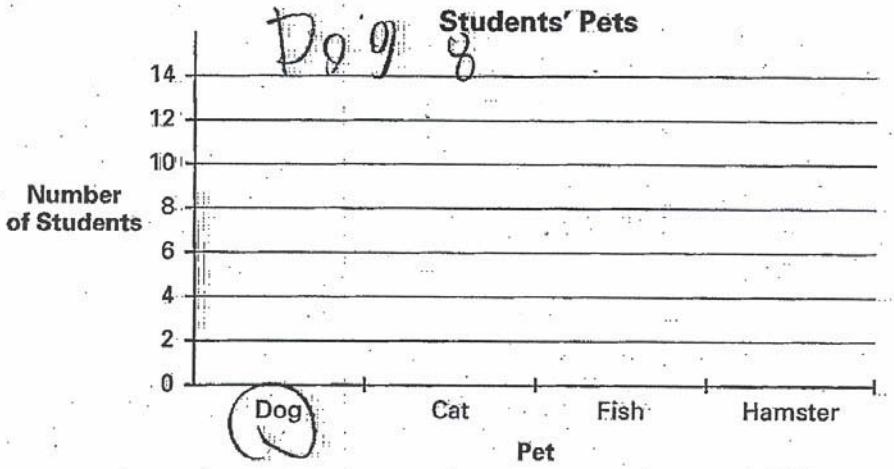


S6I Mr. Newman's class talked about the pets they own. The number of students who own each kind of pet is shown below. Complete the bar graph to show the same information.

Students' Pets

Pet	Number of Students
Dog	8
Cat	12
Fish	6
Hamster	3



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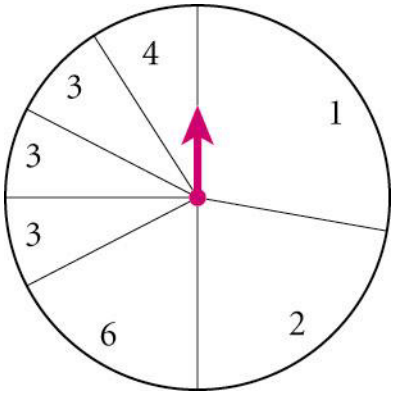
21. Probability - MC

If Jack spins the spinner once, on which number is the arrow **most likely** to land?



- ⊙ 1
- ○ 2
- ○ 3
- ○ 4

22. Patterns - MC

Which rule was followed in the table below?

START	END
5	2
7	4
10	7
12	9

- ○ Add 2
- ◉ Subtract 3
- ○ Multiply by 2
- ○ Divide by 5

22. Patterns - OE

These numbers follow a pattern.
11, 14, 17, 20, ___?___

What number should come next in the pattern?

Answer _____

Explain why you think that number should be next in the pattern.

_____
_____
_____
_____
_____
_____

22. Patterns - OE

040762
S-2 These numbers follow a pattern.

19, 16, ___?___, 10, 7, 4

What number is missing from the pattern? _____

Explain why you think it is the missing number.

S2A These numbers follow a pattern.

19, 16, ? ,10, 7, 4

What number is missing from the pattern? 13

Explain why you think it is the missing number.

I found my anweser by counting from 4 and then I came to 7 then I came to 10 the I said oh! this pattern is counting by 3's so I counted three more from ten. And it equaled 13.

2

S2B These numbers follow a pattern.

19, 16, ? ,10, 7, 4

What number is missing from the pattern? 13

Explain why you think it is the missing number.

The pattern is -3 and 16-3=13.

2

S2C These numbers follow a pattern.

19, 16, ? ,10, 7, 4

What number is missing from the pattern? 13

Explain why you think it is the missing number.

Well, if you start plusin' 3's from 4, it sort of makes like a mini pattern 4+3=7 7+3=10 10+3=13. But the difference here is this is subtraction

2

S2D These numbers follow a pattern.

19, 16, ? ,10, 7, 4

What number is missing from the pattern? 13

Explain why you think it is the missing number.

becese I know. 1

S2E These numbers follow a pattern.

19, 16, ? ,10, 7, 4

What number is missing from the pattern? 13

Explain why you think it is the missing number.

Beacse. I stated to take away from the 19 And I noticed it was −2. 1

S2F These numbers follow a pattern.

19, 16, ? ,10, 7, 4

What number is missing from the pattern? 14

Explain why you think it is the missing number.

The pattern is +3 and so I added 3 to each number to get 14. 1

S2G These numbers follow a pattern.

19, 16, ___?___ ,10, 7, 4

What number is missing from the pattern? 15

Explain why you think it is the missing number.

because I counted first and then I added it up and I got 15.

0

S2H These numbers follow a pattern.

19, 16, ___?___ ,10, 7, 4

What number is missing from the pattern? 17

Explain why you think it is the missing number.

The Pattern is 19 and so I added 17

0

S2I These numbers follow a pattern.

19, 16, ___?___ ,10, 7, 4

What number is missing from the pattern? 18

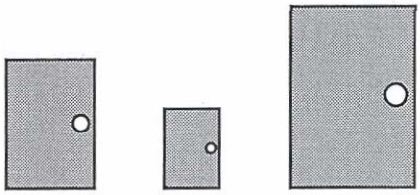
Explain why you think it is the missing number.

Edell I thoght to my self 19,16 18, and I think i got the answer

0

24. Classification and Logical Reasoning - MC

How are these doors **different**?

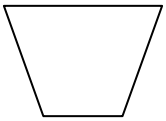


- ○ Size and color
- ◉ Size only
- ○ Shape and size
- ○ Color only

24. Classification and Logical Reasoning - OE

Sort all 7 of these figures into 2 groups so that the figures in each group have something in common. Show how you grouped the figures by writing the **letter** (Q, R, S, T, U, V, or W) of each figure on the chart.

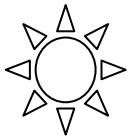
Q



R

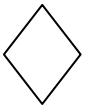
S

T



U

V



W

Group 1	Group 2

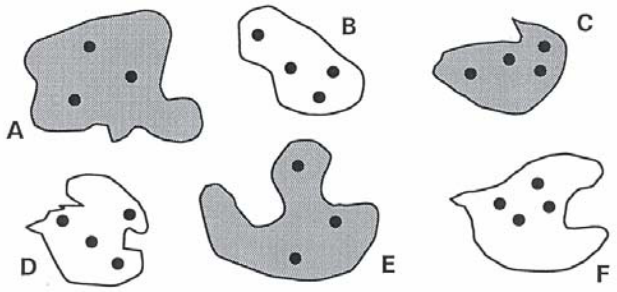
Explain why you grouped the figures the way you did.

_____
_____
_____
_____
_____
_____

24. Classification and Logical Reasoning - OE

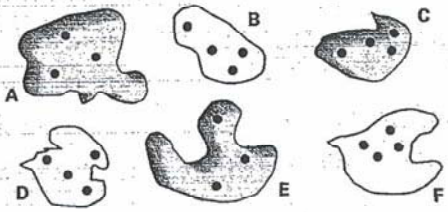
009732

S-5 Sort all 6 of these figures into 2 groups so that the figures in each group have something in common. Show how you grouped the figures by writing the **letter** of each figure into the boxes labeled Group 1 and Group 2 below. Then write a sentence that tells how you decided to group the figures.



Group 1	Group 2

S5A Sort all 6 of these figures into 2 groups so that the figures in each group have something in common. Show how you grouped the figures by writing the **letter** of each figure into the boxes labeled Group 1 and Group 2 below. Then write a sentence that tells how you decided to group the figures.

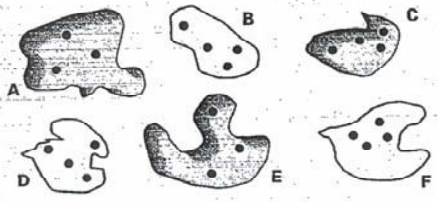


2

Group 1	Group 2
A E C	D F B

I grouped group 1 the shaded ... figures because I thought they could be in a group together. I also grouped group 2 with the non-shaded figures.

S5B Sort all 6 of these figures into 2 groups so that the figures in each group have something in common. Show how you grouped the figures by writing the **letter** of each figure into the boxes labeled Group 1 and Group 2 below. Then write a sentence that tells how you decided to group the figures.

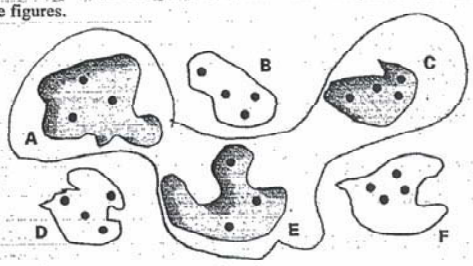


2

Group 1	Group 2
A E	F C D B

I decided to group them by how many dots they had. Group 1 has three dot shapes and Group 2 has four dot shapes.

S5C Sort all 6 of these figures into 2 groups so that the figures in each group have something in common. Show how you grouped the figures by writing the **letter** of each figure into the boxes labeled Group 1 and Group 2 below. Then write a sentence that tells how you decided to group the figures.

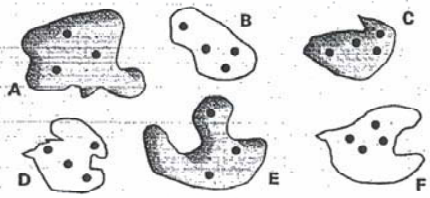


2

Group 1	Group 2
A E C	D B F

I sorted the groups into colored wich was A, E, C. Also then I put the ones that were not cobred into the group of B, D, F

S5D Sort all 6 of these figures into 2 groups so that the figures in each group have something in common. Show how you grouped the figures by writing the **letter** of each figure into the boxes labeled Group 1 and Group 2 below. Then write a sentence that tells how you decided to group the figures.

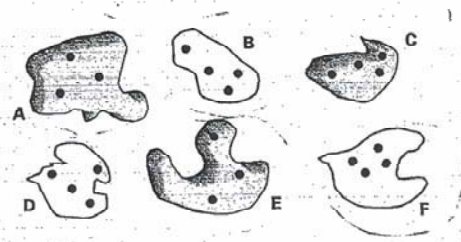


1

Group 1	Group 2
B F D	A E C

I grouped group 1 together because they all have 4 dots, I grouped group 2 together because they all have a black background.

S5E Sort all 6 of these figures into 2 groups so that the figures in each group have something in common. Show how you grouped the figures by writing the **letter** of each figure into the boxes labeled Group 1 and Group 2 below. Then write a sentence that tells how you decided to group the figures.

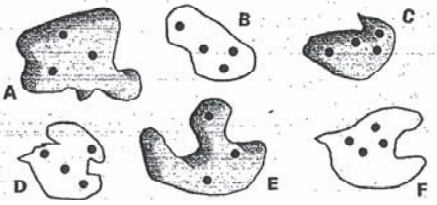


1

Group 1	Group 2
A E	B D

I put all of the ones that had three dots in group 1 and all the figures that had 4 dots in group 2 The number sentence was 8+6=14. that was the answer that I used to Solve the problem.

S5F Sort all 6 of these figures into 2 groups so that the figures in each group have something in common. Show how you grouped the figures by writing the **letter** of each figure into the boxes labeled Group 1 and Group 2 below. Then write a sentence that tells how you decided to group the figures.

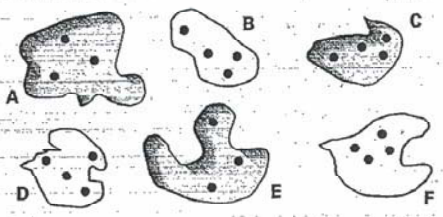


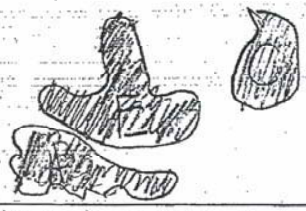
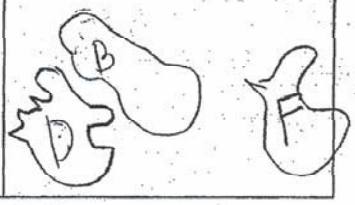
1

Group 1	Group 2
A, E, C	D, B, F

Group I is the same. because they are all gray. Group 2 is the same because they are all closed figures.

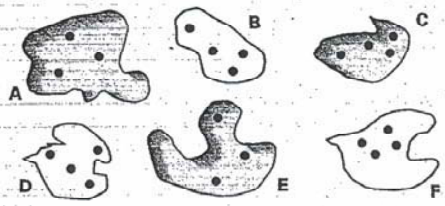
S5I Sort all 6 of these figures into 2 groups so that the figures in each group have something in common. Show how you grouped the figures by writing the **letter** of each figure into the boxes labeled Group 1 and Group 2 below. Then write a sentence that tells how you decided to group the figures.



Group 1	Group 2
	

1

S5H Sort all 6 of these figures into 2 groups so that the figures in each group have something in common. Show how you grouped the figures by writing the **letter** of each figure into the boxes labeled Group 1 and Group 2 below. Then write a sentence that tells how you decided to group the figures.

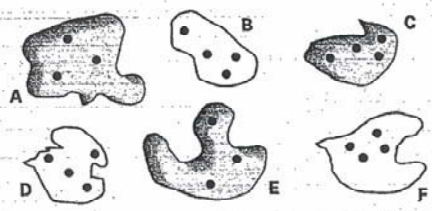


Group 1	Group 2
A D	E C F b

0

A and E have something in common three dots. D and F have things in common they both have four dots and three both are yellow.

S5G Sort all 6 of these figures into 2 groups so that the figures in each group have something in common. Show how you grouped the figures by writing the **letter** of each figure into the boxes labeled *Group 1* and *Group 2* below. *Then write a sentence that tells how you decided* to group the figures.



Group 1	Group 2
A B C	D E F

0

I knew it because I used it
on it was A, B, C: oder1

25. Mathematical Applications

Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- **twice** as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- 2 **more** pairs of clogs than pairs of boots

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers		
Flip-flops		
Boots		
Dress Shoes		
Clogs		
Total		

E1A Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- **twice** as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- **2 more** pairs of clogs than pairs of boots

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	3 pairs	3 pairs
Flip-flops	6 pairs	4 pairs
Boots	3 pairs	2 pairs
Dress Shoes	1 pair	5 pairs
Clogs	5 pairs	4 pairs
Total	18 pairs	18 pairs

3

E1B Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- **twice** as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- **2 more** pairs of clogs than pairs of boots

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	3 pairs	3 pairs
Flip-flops	6 pairs	4 pairs
Boots	3 Pairs	2 pairs
Dress Shoes	1 Pair	5 pairs
Clogs	5 pairs	4 pairs
Total	18 pairs	18 pairs

3

E1C Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- twice as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- 2 more pairs of clogs than pairs of boots

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

3

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	3	3
Flip-flops	6	4
Boots	3	2
Dress Shoes	1	5
Clogs	5	4
Total	18	18

E1D Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- twice as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- 2 more pairs of clogs than pairs of boots

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

2

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	3 pairs	3 pair
Flip-flops	4 pairs	2 pairs
Boots	2 pairs	1 pairs
Dress Shoes	3 pairs	9 pairs
Clogs	6 pairs	3 pairs
Total	18 pairs	18 pairs

E1E Geno's mother has 5 kinds of shoes in her closet.

There are:

- *sneakers, flip-flops, boots, dress shoes, and clogs*
- 18 pairs of shoes in all
- **twice** as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- 2 **more** pairs of clogs than pairs of boots

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	3	2
Flip-flops	2	2
Boots	1	1
Dress Shoes	9	9
Clogs	3	3
Total	18	18

2

E1F Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- **twice** as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- 2 **more** pairs of clogs than pairs of boots

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

2

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	3 pairs	3
Flip-flops	4 pairs	3
Boots	2 pairs	3
Dress Shoes	5 pairs	6
Clogs	4 pairs	3
Total	18 pairs	18

E1G Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- **twice** as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- **2 more** pairs of clogs than pairs of boots

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

1

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	3 pair	2
Flip-flops	2 pair	3
Boots	1 pair	2
Dress Shoes	1 pair	2
Clogs	2 pair	1
Total	18 pairs	10 pairs

E1H Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- **twice** as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- **2 more** pairs of clogs than pairs of boots

1

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	3	3
Flip-flops	8	8
Boots	4	4
Dress Shoes	1	2
Clogs	2	1
Total	18	18

E1I

Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- **twice** as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- **2 more** pairs of clogs than pairs of boots

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

1

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	3 Pairs	3 Pairs
Flip-flops	4 Pairs	4 Pairs
Boots	2 Pairs	2 Pairs
Dress Shoes	3 Pairs	3 Pairs
Clogs	4 Pairs	4 Pairs
Total	16 Pairs	16 Pairs

E1J

Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- **twice** as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- **2 more** pairs of clogs than pairs of boots

0

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	2	7
Flip-flops	5	3
Boots	3	2
Dress Shoes	5	5
Clogs	3	4
Total	18	18

E1K Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- twice as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- 2 more pairs of clogs than pairs of boots

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

0

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	3	4
Flip-flops	6	4
Boots	4	6
Dress Shoes	2	3
Clogs	1	3
Total	18	18

E1L Geno's mother has 5 kinds of shoes in her closet.

There are:

- sneakers, flip-flops, boots, dress shoes, and clogs
- 18 pairs of shoes in all
- twice as many pairs of flip-flops as pairs of boots
- 3 pairs of sneakers
- 2 more pairs of clogs than pairs of boots

Use the information above to show how many pairs of each kind of shoe Geno's mother could have in her closet. Then show another way his mother could have pairs of each kind of shoe in her closet. Fill in the table below with your answers.

0

Shoes in the Closet

Kind of Shoes	Number of Pairs	
	One Way	Another Way
Sneakers	3	1
Flip-flops	2	4
Boots	4	3
Dress Shoes	3	5
Clogs	2	2
Total	18	18

25. Mathematical Applications

Jeff needs to raise $80 to go on a class trip. He can do different jobs to earn the money. Jeff can work at the following jobs for the pay listed.

JOB	PAY PER HOUR
Sweep garage	$1
Dust	$1
Return bottles	$2
Wash the car	$3
Baby-sit	$5

Use the information above to show one way that Jeff can raise the $80.

- Jeff can work for no more than 40 hours in all.
- No one job may be done for more than 10 hours.
- At least 3 different jobs must be picked.
- A total of exactly $80 must be raised.

Fill in the chart to show the number of hours each job was done in order to earn exactly $80.

JOB	HOURS WORKED	MONEY RAISED
Sweep garage		
Dust		
Return bottles		
Wash the car		
Baby-sit		
TOTALS:		

Connecticut Mastery Test – Fourth Generation
Mathematics Grade 3 Vocabulary List

Add
All together
A.M.
Angle(s)
Answer
Area
Array
Arrow
At least
Bar graph
Between
Cardinal numbers
Centimeter
Change (as in money)
Chart
Circle
Clock (analog and digital)
Closest to
Data
Day
Days of the week
Denominator
Difference
Different
Digit
Divide
Equal
Equation
Estimate
Exactly
Explain
Factor
Fair
Farthest
Fewer, fewest
Fewer than
Figure (as in geometric figure)
Foot
Fraction
Fractional part
Graph
Greatest
Group, grouped
Grid (dot paper)
Half
Height
Hexagon
Hour
How many more
How many less
Hundred (s)
Inch
In common
Larger/ larger than
Least
Length
Less
Less than
Likely
Line segment
Long, longer, longest
Measure
Meter
Minute
Missing
Month
More than
Most
Multiply
Nearest
No less than
No more than
Number fact
Number line
Number sentence
Numerator
Ones
Operation
Order (numbers)
Ordinal numbers (first, second, etc.)
Parallelogram
Pattern
Pictograph
P.M. (as in afternoon)
Point (on number line)
Polygon
Product
Quarter
Reasonable
Rectangle
Rectangular
Replaced
Ring (draw a ring around)
Rounding, rounded
Same/same as
Segment
Set
Shaded
Shape
Short, shorter, shortest
Side(s)
Size
Small/smaller than
Solve/solution
Sort
Spinner
Square
Story problem
Subtract
Sum
Table
Tall, taller, tallest
Tens
Triangle
Units (using dot paper, base ten blocks, and measurement)
Unshaded
Value
Venn diagram
Week
Weight
Width
Yard
Year

This list, while not exhaustive, includes vocabulary with which all teachers and students should be familiar.