

Student Name \_\_\_\_\_

## Summer Math Packet Rising Fifth Grade

	4	3	2	1
<b>Effort</b>	All pages are completed	At least 20 pages are completed	At least 15 pages are completed	At least 8 pages are completed
<b>Accuracy</b>	At least 90% of the completed problems are correct	At least 80% of the completed problems are correct	At least 70% of the completed problems are correct	At least 60% of the completed problems are correct
<b>Calculations</b>	Work is shown for all necessary problems. It is clearly labeled, and easy to follow.	Work is shown for all necessary problems. It may be difficult to follow and/or not clearly labeled.	Work is shown for at least 50% of the problems. It may be difficult to follow and/or not clearly labeled.	Work is shown for at least some problems. It is not clearly labeled and/or difficult to follow.
<b>Presentation</b>	Material is legible. All pages are stapled with worksheets in the correct order and work pages in order at the back of the packet.	Material is legible. All pages are stapled with worksheets in the correct order and work pages at the back of the packet.	Material can be read with some difficulty. All pages are stapled with worksheets in the correct order and work pages at the back of the packet.	Material is difficult to read. All pages are stapled with worksheets in the front and work pages at the back of the packet.
<b>Timeline</b>	Packet was returned by the deadline.	Packet was turned in 1 day late.	Packet was turned in 2-3 days late.	Packet was turned in less than 1 week late.

	Score	Weight	Adjusted Score
Effort		X 3	
Accuracy		X 3	
Calculations		X 3	
Presentation		X 2	
Timeline		X 1.5	
	Total Score		/50

**Include this page on the top of your packet when you turn it in.**

**AAA Math:** <http://aaamath.com/>

A comprehensive set of thousands of interactive lessons Kindergarten through Eighth grade level. Unlimited practice is available on each topic which allows thorough mastery of the concepts. Immediate feedback prevents practicing and learning incorrect methods.

**Adapted Mind:** <http://www.adaptedmind.com/>

Lessons on a variety of math topics from grades 1-8. Each lesson has problems, explanations and an instructional video.

**BrainPop:** <https://www.brainpop.com/math/>

Dozens of animated movies on various math topics that will keep your attention focused! Each topic/concept also has a quiz, activity page, an experiment, a timeline, and a short comic-strip. Can watch two movies free daily or buy a yearly subscription for unlimited access.

**CoolMath:** <http://www.coolmath.com/prealgebra>

All topics relate to pre-algebra. Includes explanations, practice, games and reference tools.

**CoolMath4Kids:** <https://www.coolmath4kids.com/math-help>

Includes lessons, quizzes, games, manipulatives and brain teasers for addition, subtraction, multiplication, division and fractions.

**Hippo Campus:** <https://www.hippocampus.org/HippoCampus/>

A free, core academic web site that delivers rich multimedia content - videos, animations, and simulations - on general education subjects to middle-school and high-school students.

**Homeschool Math:** <http://www.homeschoolmath.net>

A comprehensive math resource site that includes free math worksheets, lessons, online math games lists, eBooks, a curriculum guide, reviews, and more. The resources emphasize understanding of concepts instead of mechanical memorization of rules.

**Illuminations:** <https://illuminations.nctm.org/>

Project of the National Council of Teachers of Mathematics (NCTM). Provides standards-based lessons, resources and materials for math concepts in grades PreK-12.

**Interactivate:** <http://www.shodor.org/interactivate/activities/>

Collection of interactive materials for a variety of math topics.

**Math Glossary:** [http://jukebox.esc13.net/interactiveGlossary/HTML\\_files/\\_interactiveVocabularySearch.html](http://jukebox.esc13.net/interactiveGlossary/HTML_files/_interactiveVocabularySearch.html)

Provides definitions, key characteristics, examples and non-examples for math terms.

**Math Planet:** <https://www.mathplanet.com/>

An online resource providing free math lessons for Pre-algebra, Algebra 1, Algebra 2 and Geometry. It also has practice tests for the SAT and ACT.

**IXL Math:** <https://ca.ixl.com/math/>

Detailed explanations, interactive questions, engaging item types, and real-world scenarios to develop math skills. Grouped by topic and grade level.

**Khan Academy:** <https://www.khanacademy.org/math>

All math topics for any grade level can be searched. All topics have explanations, videos, and practice for each topic.

**Learn Zillion:** <https://learnzillion.com/Math>

Math instructional videos. Short (3-10 minute) videos intended for teacher and student use focused on targeted concepts and skills. Organized by topic.

**Math Cats:** <http://mathcats.com/>

Website promotes open-ended and playful explorations of important math concepts in the context of online games, interactive applets, and activity suggestions.

**A Math Dictionary for Kids:** <http://amathsdictionaryforkids.com/>

Math dictionary which explains mathematical terms in simple language. Also provides free math charts.

**Math Drills:** <http://www.math-drills.com>

Offers reinforcement and drills on various topics of middle school math including number sense and pre-algebra.

**Math Flix:** <http://mathflix.luc.edu/>

Instructional math movies, 4-7 minutes in length, covering a wide range of math concepts. Also features downloadable worksheets that reinforce concepts and provide valuable practice.

**Math is Fun:** <http://www.mathisfun.com/>

Math explained in easy language, plus puzzles, games, quizzes, worksheets, interactive dictionary and a forum.

**Math Goodies:** <https://www.mathgoodies.com/>

A math help website featuring free interactive lessons, worksheets, games and puzzles.

**Math Playground:** <http://www.mathplayground.com/mathvideos.html>

Offers math videos on a variety of middle school math concepts. Also has word problems and logic puzzles.

**Math Videos:** <http://mathvids.com/level/3-middle-school-math>

Online math video lessons for middle school.

**Mr. Barton Maths:** <http://mrbartonmaths.com/topics/>

Notes, lessons, videos on middle school and algebra topics.

**Online Math Practice:** <https://www.ipracticemath.com/>

Free interactive online math practice for grades 1-12. More topics added every month.

**Pre-Algebra:** <https://www.shmoop.com/pre-algebra/>

Free learning guides (tutorials) for all prealgebra topics with interactive practice problems, step-by-step examples, graphs, and real-world applications. This can be used for an online pre-algebra textbook.

**Purple Math:** <http://www.purplemath.com/index.htm#>

Math lessons emphasize the practicalities rather than the technicalities, demonstrating dependably helpful techniques, warning of likely "trick" test questions, and pointing out common student mistakes.

**Splash Math:** <https://www.splashmath.com/>

An online math practice system for grades K-5. Includes all basic topics for those grades. You can practice 20 questions per day for free.

**Student Guide:** <http://www.studentguide.org/a-complete-list-of-online-math-resources/>

Comprehensive collection of useful resources for students for all math subjects from the basics to calculus.

**Virtual Nerd:** <http://virtualnerd.com/>

Over 1,500 video lessons covering Middle Grades Math through Algebra 2.

**WebMath:** <http://www.webmath.com/>

A math-help web site that generates answers to specific math questions and problems, as entered by a user. In addition to the answers, Webmath also shows the student how to arrive at the answer.

**World of Math Online:** <http://www.math.com/>

Free math lessons and homework help from basic math to algebra and geometry. Also has a glossary of math terms.

## Place Value

1.) A local car dealer sold 870 cars last month. He sold 100 **MORE** cars this month than last month. How many cars did he sell this month?

- a) 770
- b) 870
- c) 970
- d) 1070

2.) Which means the same as 7,046?

- a)  $7000 + 40 + 6$
- b)  $7000 + 406$
- c)  $700 + 40 + 6$
- d)  $70 + 46$

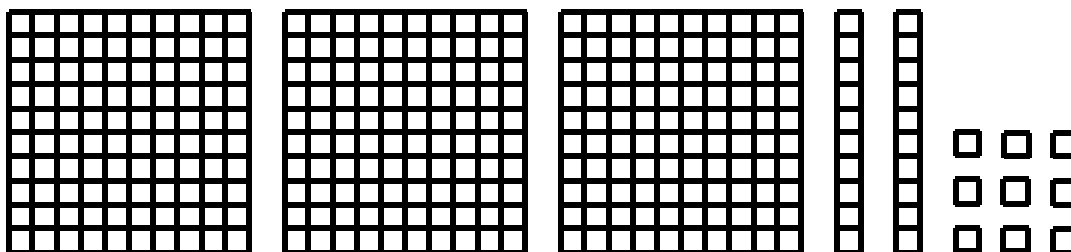
3.) Which means the same as 95?

- a) 9 tens and 15 ones
- b) 90 tens and 5 ones
- c) 8 tens and 15 ones
- d) 7 tens and 15 ones

4.) In which number does 4 have the **GREATEST** value?

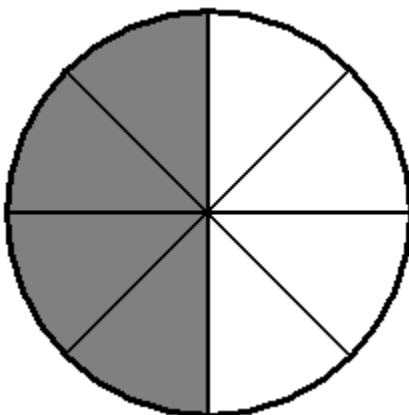
- a) 34
- b) 43
- c) 435
- d) 534

## Pictorial Representations of Numbers



5.) What number is shown by the blocks pictured above? \_\_\_\_\_

6.) What fractional part of this figure is shaded?



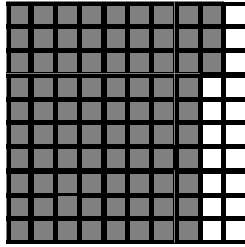
a)  $\frac{1}{8}$

b)  $\frac{1}{4}$

c)  $\frac{1}{2}$

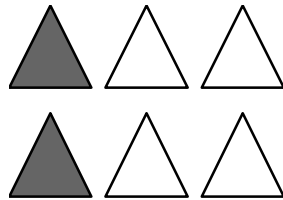
d)  $\frac{3}{4}$

7.) The shaded part of this picture shows what decimal number?

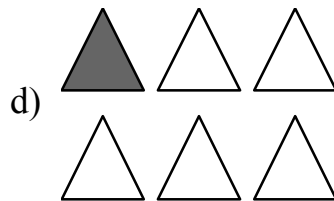
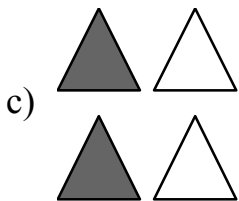
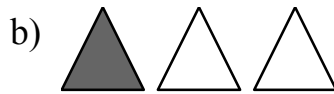
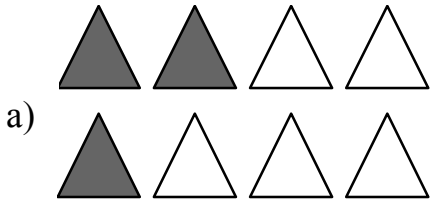


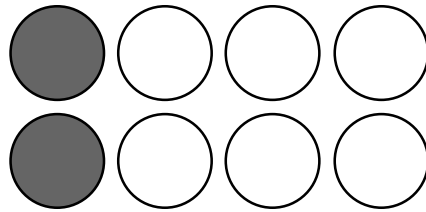
- a) 0.17
- b) 0.38
- c) 0.83
- d) 1.3

**Equivalent Fractions, Decimals, and Percents**

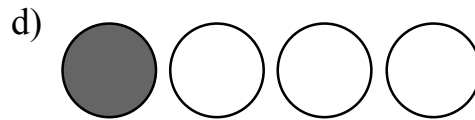
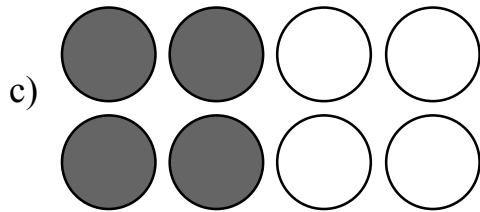
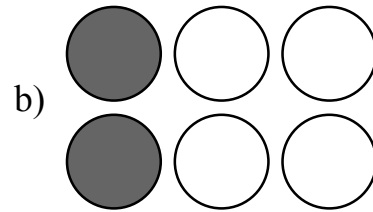
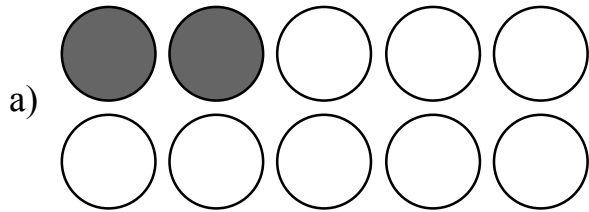


8.) Which picture below has the same fractional part shaded as the picture above?





9.) Which picture below has the same fractional part shaded as the picture above?



**Order, Magnitude, and Rounding of Numbers**

10.) The table below shows games won by the players in a tournament.

**CHECKERS TOURNAMENT**

Players	Games Won
Eric	162
Mark	97
Jeff	184
Zach	76

What is the correct order of games won by the players from **LEAST** to **GREATEST**?

- a) Zach, Mark, Eric, Jeff
- b) Eric, Zach, Jeff, Mark
- c) Jeff, Eric, Mark, Zach
- d) Mark, Jeff, Eric, Zach

11.) The table below shows the speeds of four animals.

**SPEEDS OF ANIMALS**

<b>Animal</b>	<b>Speed (mph)</b>
Cheetah	70
Elk	45
Pronghorn	60
Lion	50

What is the correct order of speed of the animals from **GREATEST** to **LEAST**?

- a) cheetah, lion, elk, pronghorn
- b) cheetah, pronghorn, lion, elk
- c) cheetah, elk, pronghorn, lion
- d) elk, lion, pronghorn, cheetah

12.) The table below shows the number of miles four travelers have flown.

**TRAVELER'S MILES**

<b>Name</b>	<b>Number of Miles</b>
Harlan	5,875
Missy	4,083
Tamika	6,172
Randy	8,497

Who has flown the **LEAST** miles?

- a) Harlan
- b) Missy
- c) Tamika
- d) Randy



13.) The table below shows the population of four towns.

**TOWN POPULATION**

<b>Town</b>	<b>Population</b>
Maple Ridge	8,715
Silver Springs	4,270
Center City	6,294
Pine Valley	7,804

Which town has the **GREATEST** population?

- a) Maple Ridge
- b) Silver Springs
- c) Center City
- d) Pine Valley

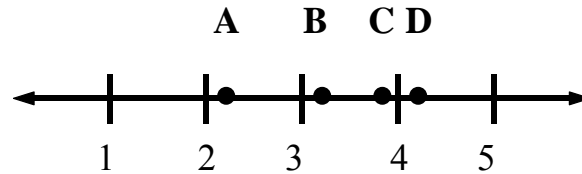
14.) There are 887 students at Jaclyn's school. This number is **CLOSEST** to:

- a) 600
- b) 700
- c) 800
- d) 900

15.) A television set costs \$248. This number is **CLOSEST** to:

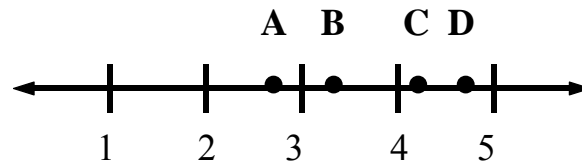
- a) \$250
- b) \$ 225
- c) \$ 300
- d) \$275

16.) On the number line below, the number 3.2 is **CLOSEST** to which labeled point?



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

17.) On the number line below, the number  $4\frac{2}{3}$  is **CLOSEST** to which labeled point?



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

<b>Models for Operations</b>
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18.) There are 2 cupcakes in a package. Mrs. Carroll bought 4 packages. Which number sentence could be used to find out how many cupcakes she bought?

- a)  $4 \div 2 = \square$
- b)  $4 + 2 = \square$
- c)  $4 \times 2 = \square$
- d)  $4 - 2 = \square$

19.) Jennifer has 24 crayons. She needs to put her crayons in boxes. Each box holds 8 crayons. Which number sentence could be used to find out how many boxes Jennifer will need?

- a)  $24 \div 8 = \square$
- b)  $24 \times 8 = \square$
- c)  $24 - 8 = \square$
- d)  $24 + 8 = \square$

20.) Write a story problem that can be solved using the number sentence  
 $8 \times 6 =$

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21.) Write a story problem that can be solved using the number sentence  
 $63 \div 9 =$

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<b>Basic Facts</b>
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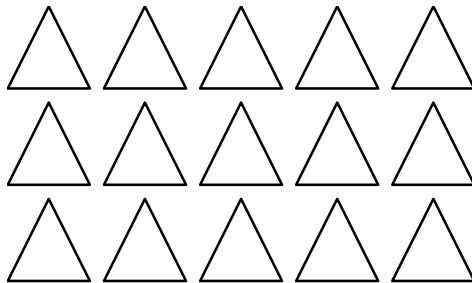
22.) Solve this problem:  $5 \times 9 =$

- a) 30
- b) 40
- c) 45
- d) 55

23.) Solve this problem:  $36 \div 9 =$

- a) 4
- b) 6
- c) 9
- d) 12

24.)



Which number sentence describes the triangles above?

- a)  $3 + 5 = \square$
- b)  $3 \times 5 = \square$
- c)  $5 \div 3 = \square$
- d)  $5 - 3 = \square$

<b>Computation with Whole Numbers and Decimals</b>
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\*\*Show your work for these problems.

25.) Solve this problem:  $48 - 29 = \underline{\hspace{2cm}}$

26.) Solve this problem:  $\$3.78 + \$4.69 = \underline{\hspace{2cm}}$

<b>Solve Word Problems</b>
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27.) The 56 students in the fifth grade were divided into 8 teams. Charlotte was on Team 5. How many students were on each team?

- a) 7
- b) 8
- c) 40
- d) 56

28.) Martin spent \$2.60 on his lunch. Sandwiches cost \$1.25. Milkshakes cost \$0.65. How much **MORE** does a sandwich cost than a milkshake?

29.) Sue-Lee scored 93 points on a science test on Monday and 77 points on a science test on Friday. What was the difference between her two scores?

30.) Tamara read 197 pages of a library book on the weekend and 129 pages during the week. How many pages did she read altogether?

31.) Solve this problem then explain your thinking. Maxwell has 25 baseball trading cards to give away. If he gives them equally to 5 friends, how many cards will each friend get?

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32.) Solve this problem then explain your thinking. Adrian bought 4 packs of apple juice. If there are 6 bottles of juice in each pack, how many bottles of apple juice did she buy?

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<b>Numerical Estimation Strategies</b>
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33.) Bob needs to subtract 195 from 2,613. To get a GOOD ESTIMATE of this difference, which expression would be **BEST** to use?

- a)  $2,600 - 200$
- b)  $2,700 - 200$
- c)  $2,700 - 100$
- d)  $2,600 - 100$

**Estimating Solutions to Problems**

34.) Today Pamela is on page 195. For tomorrow's assignment she must read to page 237. **ABOUT** how many pages does she have left to read?

- a) 30
- b) 40
- c) 50
- d) 500

35.) Toni had \$7.95. She spent \$3.15. **ABOUT** how much money does she have left?

- a) \$3.00
- b) \$5.00
- c) \$12.00
- d) \$400.00

**Time**

36.) The Judds started working in the garden at 1:50. They worked for 2 hours and 15 minutes. At what time did they stop working?

- a) 4:05
- b) 3:05
- c) 2:25
- d) 11:35

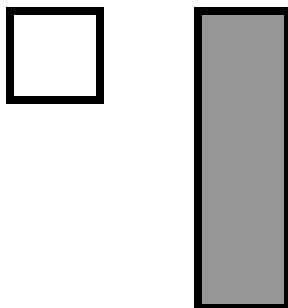
**Approximating Measures**

37.) If Box A is 4 units long, **ABOUT** how long is Box B?



- a) 5 units
- b) 3 units
- c) 2 units
- d) 1 unit

38.) If the white shape covers an area of 12 square feet, **ABOUT** how many square feet would the shaded shape cover?



- a) 9 square feet
- b) 36 square feet
- c) 72 square feet
- d) 108 square feet



**Customary and Metric Measures**

39.) Use your ruler to determine which of the figures below has a perimeter of 14 centimeters. **Record all your measurements and show your work.**

a)



b)



c)



d)



40.) The amount of milk in a glass would **BEST** be measured in

- a) ounces
- b) gallons
- c) quarts
- d) pounds

41.) Many students in Maple School walk to school. Which is a **REASONABLE** distance to walk to school?

- a) 2 meters
- b) 2 kilometers
- c) 2 centimeters
- d) 2 liters

**Geometric Shapes and Properties**

42.) Draw a pentagon. Then write one or two sentences to describe this figure.

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43.) Draw a parallelogram. Then write one or two sentences to describe this figure.

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**Tables, Graphs, and Charts**

44.) The chart below shows the popularity of amusement park rides during one day.

**AMUSEMENT PARK RIDES**

Ride	Number of Riders
Merry-Go-Round	460
Roller Coaster	842
Ferris Wheel	891
Bumper Cars	967

**ABOUT** how many people rode the Bumper Cars?

- a) 500
- b) 600
- c) 900
- d) 1,000

45.) Complete and label the **PICTOGRAPH** using the following information.

**SAM'S T-SHIRTS**

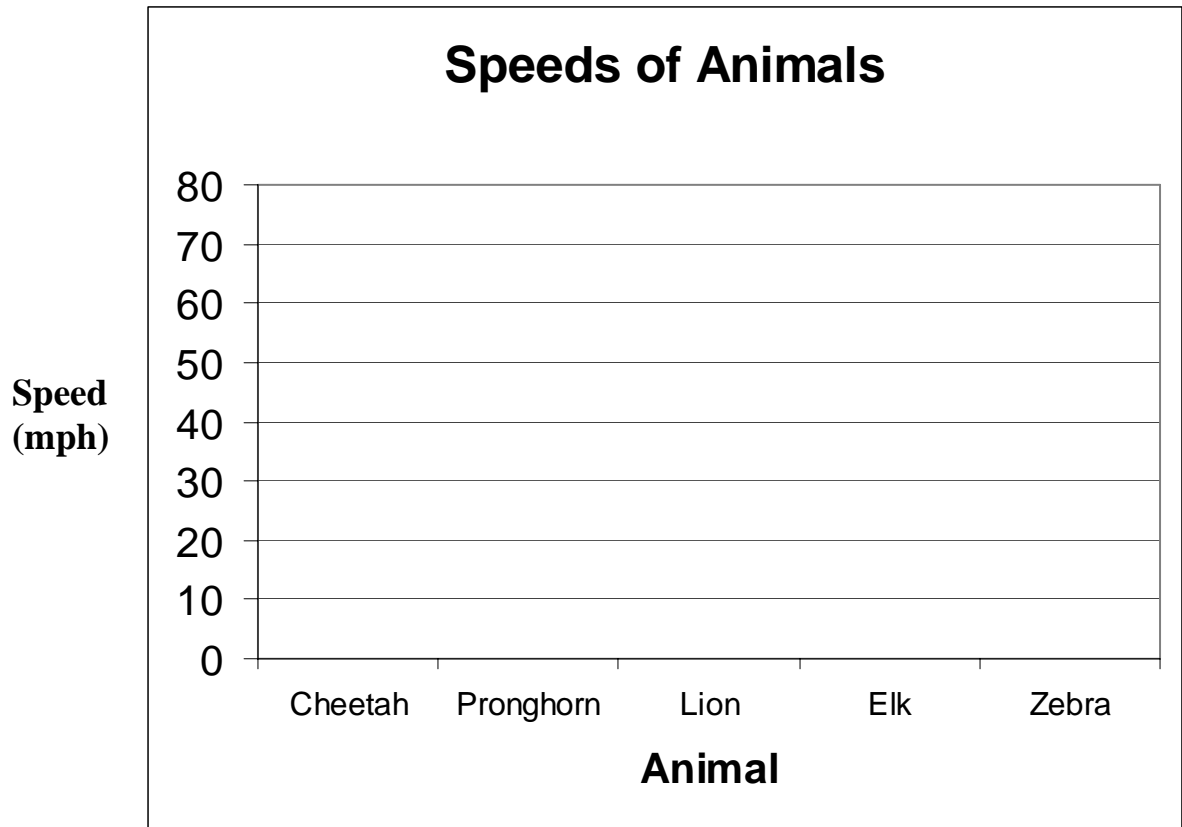
Color	Number of Shirts
Red	20
Blue	12
Green	8
White	16




46.) Complete and label the **BAR** graph using the following information.

### SPEEDS OF ANIMALS

<b>Animal</b>	<b>Speed (mph)</b>
Cheetah	70
Pronghorn	60
Lion	50
Elk	45
Zebra	40



## Statistics and Data Analysis

47.) The table shows the favorite book types of fourth and fifth graders.

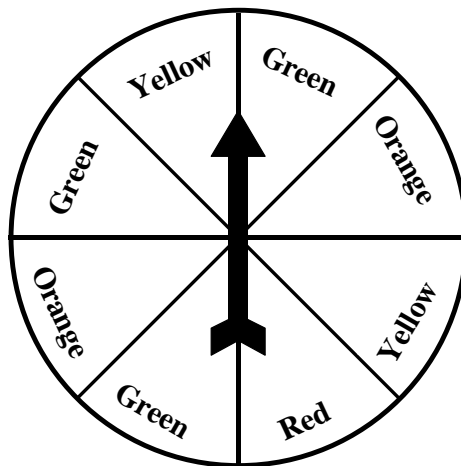
TYPE OF BOOK	FOURTH GRADERS	FIFTH GRADERS
Adventure	24	31
Animals	6	7
Biography	11	13
Mystery	26	18
Sports	11	21

Which statement about the survey is **TRUE**?

- a) Animal books were the most popular.
- b) More fifth graders than fourth graders answered the survey.
- c) More fourth graders than fifth graders chose biography books.
- d) More than 30 students chose biography books.

## Probability

48.) If Hank spins this spinner once, on which color is the arrow **MOST** likely to land?



- a) Yellow
- b) Green
- c) Orange

**Patterns**

49.) What is the next number in this pattern?

8, 12, 16, 20, 24, 28, \_\_\_\_\_

Write the number. Then write a sentence to explain why you chose this number.

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50.) Draw the figure that should come next in the pattern. Write a sentence to explain how you decided what to draw.



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<b>Classification and Logical Reasoning</b>
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51.) Tom made a list of the height of several friends. He wants to change this list into 2 new lists:

- friends taller than 56 inches
- friends shorter than 56 inches

Write the new lists for Tom.

**Tom's New Lists**

<b><u>Tom's Original List</u></b>	<b><u>Shorter than 56 inches</u></b>	<b><u>Taller than 56 inches</u></b>
Janet      55 inches		
Rhea      60 inches		
June      48 inches		
Carolyn   59 inches		
Felicia    49 inches		
Elise      63 inches		
Ginny      48 inches		
Jack      53 inches		
Brian      57 inches		
Howard    47 inches		
Ann      59 inches		

52.) Sort all 8 of these activities into 2 groups so that the activities in each group have something in common. Show how you grouped these activities by writing its name in the chart. Write a sentence that explains why you grouped them this way.

- playing tag
- playing Nintendo
- playing Monopoly
- walking the dog
- playing soccer
- eating dinner
- sleeping
- reading

<b>Group 1</b>	<b>Group 2</b>

Describe your rule for sorting here.

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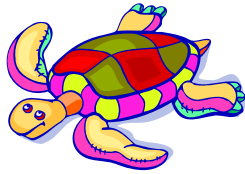
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## Mathematical Applications

53.) Tory sells stuffed animals. She sells large stuffed animals for \$9 and small stuffed animals for \$4.



**\$4.00**



**\$9.00**

By the end of the day, Tory had sold the same number of large stuffed animals as small stuffed animals. She collected a total of \$65.

How many of each size of stuffed animal did Tory sell?

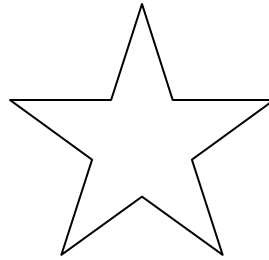
Tory sold \_\_\_\_\_ small stuffed animals and \_\_\_\_\_ large stuffed animals.

Show how you got your answer in the space below.

54.) Christy wants to decorate her folder with stars. Large stars cost 75 cents and small stars cost 25 cents. She spent \$8.00 on stars. She bought the same number of large stars as small stars.



25 cents



75 cents

How many small stars and large stars did Christy buy? (You may use a calculator.)

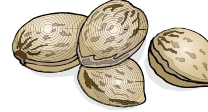
Christy bought \_\_\_\_\_ small stars and \_\_\_\_\_ large stars.

Show how you got your answer in the space below.

55.) Nuts To Crunch sells nuts at local stores and on-line. The table shows the prices of nuts from each source.



**Nuts To Crunch**



Nut	Price (per pound)	
	On-line	Local Store
Peanuts	\$0.99	\$1.49
Almonds	\$4.59	\$4.99
Pistachios	\$2.98	\$3.98
Mixed Nuts	\$2.49	\$3.29

Josh has a \$40.00 gift certificate to use at Nuts To Crunch. If he orders nuts on-line, there is a \$7.00 delivery charge. On-line he can also use a coupon for \$5.00 off any purchase over \$10.00.

Josh wants to buy 8 lbs. of peanuts and 5 lbs. of almonds. Should he buy the nuts on-line or at his local store? \_\_\_\_\_ (You may use a calculator.)

Why or why not? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Show your work in the space below.