UNIT 1 TEST PREP

Name _____ Class _____ Date _____

MULTIPLE CHOICE

1. Misha has a board that is $17\frac{1}{2}$ inches long that he has to cut into 3 equal pieces. How long should each piece be?

   A. $5\frac{2}{3}$ inches

   B. $5\frac{5}{6}$ inches

   C. $8\frac{3}{4}$ inches

   D. $14\frac{1}{2}$ inches

2. Jenni buys a piece of fabric that is $4\frac{7}{8}$ yards long. What is the decimal equivalent of $4\frac{7}{8}$?

   F. 0.875 H. 4.875

   G. 4.8 J. 4.95

3. A diver is working 30 meters below sea level. Another diver is taking a break on a platform directly above him that is 5 meters above sea level. How far apart are the two divers?

   A. 5 meters C. 35 meters

   B. 25 meters D. 40 meters

4. Thuy has \$625 in her checking account. She writes two checks for \$23 each and then makes one deposit of \$146. What is Thuy's final checking account balance?

   F. \$433 H. \$771

   G. \$725 J. \$817

5. Uma's salad dressing recipe calls for $\frac{1}{2}$ cup of yogurt. She wants to triple the recipe. How much yogurt does she need?

   A. $1\frac{1}{2}$ cups C. 3 cups

   B. 2 cups D. $3\frac{1}{2}$ cups

6. Sally's baked bean recipe calls for 5 pounds of sugar and 20 pounds of dried beans. How many pounds of sugar are needed for a recipe using just 1 pound of dried beans?

   F. $\frac{1}{5}$ pound H. 1 pound

   G. $\frac{1}{4}$ pound J. 4 pounds

7. The temperature in Franklin City is −5 °C. The temperature in Silver City is four degrees less. What is the temperature in Silver City?

   A. −9 °C C. −4 °C

   B. −5 °C D. 9 °C

8. Jim raised \$43.64 for the community food bank. Rina raised \$165.23 for the food bank, and Everett raised \$23.09 for the food bank. How much did they all raise together?

   F. \$66.73 H. \$208.87

   G. \$165.23 J. \$231.96

9. Michel's checking account balance was \$345. Michel withdrew \$160 three times. What is his current balance?

   A. −\$480 C. \$135

   B. −\$135 D. \$185

10. The table below shows Giorgio's scores at a state golf tournament. What is Giorgio's average score for the five rounds?

Round	1	2	3	4	5
Score	3	1	−3	−2	−4

    F. −4 H. −2

    G. −3 J. −1

11. A new poll shows that $\frac{9}{11}$ of all students like to eat pizza. Jan wants to write $\frac{9}{11}$ as a decimal. What is $\frac{9}{11}$ in decimal form?

A. 0.8
C. 0.8181...
B. 0.81
D. 0.90

12. A treasure chest sits 1,256 feet below sea level. A captain looking for the treasure is in a house 769 feet above sea level. What is the vertical distance between the treasure chest and the house?

F. −496 feet
G. 496 feet
H. 1,256 feet
J. 2,025 feet

13. The ABC Corporation had a profit of $3,476 in February. It had a loss of $4,509 in March. What was its net gain for February and March?

A. −$7,985
C. $1,033
B. −$1,033
D. $7,985

FREE RESPONSE

14. Sheila has to pack 128 baskets of apples. She has packed $\frac{1}{4}$ of the baskets. How many baskets are left for her to pack?

15. Marley gets on an elevator on the 30th floor of a building. She goes up 6 floors to pick up a package then goes down 14 floors for a meeting. Write and simplify an expression to show what floor Marley is now on.

16. Leanne was asked on a math test if the number 0.58 is a rational number. She says it is not a rational number. Is she correct? Why or why not?

17. Mr. Frommer's original loan balance was $4,376. He made three monthly payments of $129. He also made an extra payment of $98. Write and simplify an expression that finds Mr. Frommer's new balance.

18. The drop in temperature from 6:00 A.M. to 12:00 P.M. was 14 °F. What is the average hourly drop in temperature for that time frame?

19. Herbert's checking account balance was $233. His account has overdraft protection if he withdraws more than his balance, but the bank charges $12 for covering the overdraft. Herbert made 4 withdrawals of $70 each. Does Herbert's account require overdraft protection? Why or why not? What is his final balance?

UNIT 2 TEST PREP

Name _____ Class _____ Date _____

MULTIPLE CHOICE

1. Lauren jogs at a rate of 2 miles every $\frac{2}{5}$ hour. What is her unit rate?

   A. 0.4 mi/h C. 5 mi/h

   B. 2 mi/h D. 10 mi/h

2. The tables show the number of pages that several students read over a four-day period. Which table shows a proportional relationship?

   F.

Number of Days	1	2	3	4
Total Pages	16	24	32	40

   G.

Number of Days	1	2	3	4
Total Pages	12	24	36	48

   H.

Number of Days	1	2	3	4
Total Pages	15	20	25	30

   J.

Number of Days	1	2	3	4
Total Pages	8	16	27	36

3. An elevator moves at a constant speed of 20 feet per second. Arturo correctly graphs this proportional relationship on a coordinate plane. Which of the following points lies on Arturo's graph?

   A. (0, 20) C. (1, 20)

   B. (20, 0) D. (20, 1)

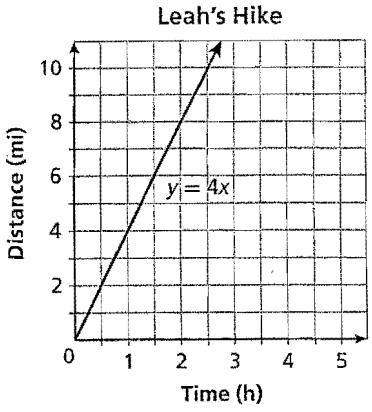
4. The table below shows a proportional relationship. One of the cells of the table is covered by a drop of ink. What value is covered by the ink?

Time (sec)	3	5	11	17
Distance (ft)	10.2	17	[ink]	57.8

   F. 3.4 H. 23

   G. 18.2 J. 37.4

5. What is the constant of proportionality for the proportional relationship shown in the graph?



   A. $\frac{1}{4}$ C. 2

   B. $\frac{1}{2}$ D. 4

6. Two pounds of dried cranberries cost \$5.04, 3 pounds of dried cranberries cost \$7.56, and 7 pounds of dried cranberries cost \$17.64. Which equation gives the total cost y of x pounds of dried cranberries?

   F. $y = 1.68x$ H. $y = 3.04x$

   G. $y = 2.52x$ J. $y = 5.04x$

7. Each yard of a fabric costs \$4.35. A table shows the number of yards of fabric and the total cost of the fabric. Which of the following must be true about the data in the table?

   A. The ratio of the total cost to the number of yards is always 4.35.

   B. The ratio of the number of yards to the total cost is always 4.35.

   C. The total cost is always 4.35 greater than the number of yards.

   D. The number of yards is always 4.35 times the total cost.

8. The manager of a sporting goods store raises the price of a basketball from \$16 to \$18. What is the percent increase?

F. 1.25% H. 11.1%

G. 2% J. 12.5%

9. Three friends have dinner at a restaurant. The total bill for the dinner is \$41. The friends want to leave a 15% tip and they want to divide the tip evenly among themselves. Which is the best estimate of each friend's share of the tip?

A. \$2 C. \$4

B. \$3 D. \$6

10. Kalil's monthly salary is \$3,250 plus he earns a 1.4% commission on his sales for the month. Kalil's sales for July were \$51,000. What was his total earning for July?

F. \$714 H. \$7,140

G. \$3,964 J. \$10,390

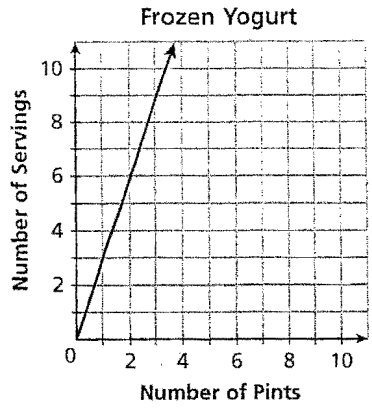
FREE RESPONSE

11. A bathtub fills at a constant rate. The amount of water in the tub increases by $\frac{1}{2}$ gallon every $\frac{1}{10}$ minute. What is the unit rate at which the tub fills?

12. In 2000, the population of a town was 50,000. In 2010, the population of the town was 48,000. What is the percent change in the town's population? Is the percent change an increase or a decrease?

13. Explain why a change in price from \$20 to \$10 is a 50% decrease, but a change in price from \$10 to \$20 is a 100% increase.

The graph shows the number of servings in different amounts of frozen yogurt. Use the graph for 14 and 15.



14. Write an equation that gives the number of servings y in x pints of frozen yogurt.

15. Mallory extends the frozen yogurt graph so that it passes through the point $(8, q)$. What is the value of q? What does this point represent?

16. The table shows the amount of money Tyler earns for mowing lawns. Is the relationship a proportional relationship? Why or why not?

Number of Lawns	1	2	3	4
Amount Earned (\$)	15	30	48	64

UNIT 3 TEST PREP

Name _____ Class _____ Date _____

MULTIPLE CHOICE

1. Maya has read two less than four times the number of books Theo has read. What factored expression represents the number of books, x, Maya has read?

   A. $4x - 2$ C. $2(x - 1)$

   B. $4(x - 2)$ D. $2(2x - 1)$

2. Hannah has \$175 to spend. She buys \$120 worth of non-taxable items. Some other items are taxable at 6%. Which inequality shows how much she can spend on taxable items before tax is applied?

   F. $x \leq \$3.30$ H. $x \leq \$51.89$

   G. $x \leq \$45.09$ J. $x \leq \$165.09$

3. Let p represent the price of a shirt. Joe has to pay sales tax of 10%. Which expression represents the total amount that Joe pays?

   A. p C. $10p$

   B. $1.1p$ D. $p + 10$

4. A mover notes the weights of a table and 4 chairs and records $t + 4c \geq 100$ on his invoice. What is he communicating?

   F. The table and 4 chairs each weigh more than 100 pounds.

   G. The table and 4 chairs weigh at most 100 pounds.

   H. The table and 4 chairs weigh around 100 pounds, give or take a little.

   J. The table and 4 chairs weigh at least 100 pounds.

5. Martha buys tennis rackets for \$45 dollars. She marks them up 25% before selling them. What is the retail price of the tennis racket?

   A. \$11.25 C. \$56.25

   B. \$54.00 D. \$112.50

6. Brad bought a skateboard for \$2 less than half its original price. If he paid \$21.50, which skateboard did he buy?

Skateboard	Price (\$)
Go Green	45
Speedster	47
Up and Down	43
With the Flow	41

   F. Go Green H. Up and Down

   G. Speedster J. With the Flow

7. Eric sells movie tickets. Adult tickets cost \$8 and children's tickets cost \$5. He keeps 15% of his sales. Which expression represents how much he keeps?

   A. $1.2a + 0.75c$ C. $15(8a + 5c)$

   B. $8a + 5c$ D. $0.15(13ac)$

8. Ken has \$18 to spend on two models of the solar system and supplies to paint them. The two models cost the same amount. His paint supplies cost \$4.62. Which expression indicates how much he can spend on each model?

   F. $x \leq \$6.69$ H. $x \leq \$13.38$

   G. $x \geq \$6.69$ J. $x \geq \$13.38$

9. Mrs. Hughes' class has 22 students. Her principal tells her that her class will increase to 30 students. Which equation can be used to find the percent increase?

   A. $22 + x = 30$ C. $22 + 22x = 30$

   B. $22 = 30x$ D. $30 - 22x = x$

10. Which inequality can be used to find how many \$1.25 snack packs can be purchased for \$10.00?

    F. $1.25s \geq 10.00$ H. $\frac{s}{1.25} \geq 10.00$

    G. $1.25s \leq 10.00$ J. $\frac{s}{1.25} \leq 10.00$

11. The price of mailing a small package is \$0.32 for the first ounce and \$0.21 for each additional ounce. Sandra paid \$1.16 to mail her package. How much did it weigh?

A. 4 ounces
C. 6 ounces
B. 5 ounces
D. 7 ounces

12. A bench is being centered on a wall. The wall is 2.7 m long and the bench is 1.8 m wide. Which equation can be used to determine how much of the wall should be on each side of the bench?

F. $2.7 - 1.8x = 2$
G. $1.8x - 2 = 2.7$
H. $2x - 1.8 = 2.7$
J. $2.7 - 2x = 1.8$

13. Shawn sells sunglasses for s dollars. For his winter sale, he marks them down by 33%. Which expression represents the sale price of the sunglasses?

A. $0.33s$
C. $0.67s$
B. $0.66s$
D. $1.33s$

FREE RESPONSE

14. Henry is putting a new baseboard around his room. He used the formula $P = 2(\ell + w)$ to find the perimeter. The perimeter is $72\frac{1}{2}$ feet. He remembers that the width was $16\frac{1}{2}$ feet. Show two different ways to find the length of the other wall.

15. A baseball stadium has seats in the three areas listed in the table.

Type of Seat	Number of Seats
Lower Deck	10,238
Upper Deck	26,142
Box level	721

Suppose all the box level seats during a game are filled. Write and solve an inequality to determine how many people could be sitting in the other seats.

16. Katia has one more than five times the number of wristbands that Shelly has. Rae has three more than twice the number that Shelly has. What expression would show how many more wristbands Katia has than Rae? Show your work.

17. Lacey has \$20 to spend on school supplies. Notebooks cost \$2.50, pens cost \$0.50 and pencils cost \$0.12. Lacey needs 7 notebooks for her classes and also wants to get 4 pens. How many pencils cans she buy? Explain.

UNIT 4 TEST PREP

Name _____ Class _____ Date _____

MULTIPLE CHOICE

1. Which of the following could be a horizontal cross-section of a cylinder?

   A. hexagon C. circle

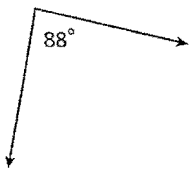
   B. triangle D. octagon

2. If two angles are supplementary, what is the sum of their measures?

   F. 30° H. 180°

   G. 90° J. 360°

3. What is the measure of the angle that is complementary to the angle shown?



   A. 2° C. 90°

   B. 12° D. 92°

4. A map has a scale of 1 inch to 5 miles. The distance from Yuri's home to school is 10 miles. How many inches is Yuri's home from school on the map?

   F. 1 inch H. 5 inches

   G. 2 inches J. 10 inches

5. Angle D is a vertical angle to $\angle F$. The measure of $\angle D$ is 53°. What is the measure of $\angle F$?

   A. 3° C. 43°

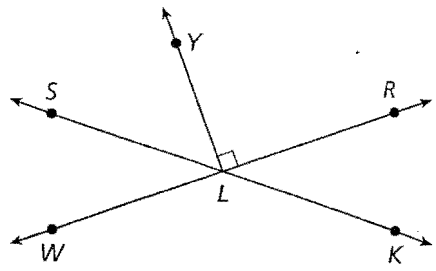
   B. 37° D. 53°

6. Which of the following could NOT be a cross section of a rectangular prism?

   F. rectangle H. parallelogram

   G. circle J. triangle

Use the figure for problems 7–11.



7. Which pair of angles are adjacent angles?

   A. $\angle SLW$ and $\angle RLK$

   B. $\angle SLW$ and $\angle WLK$

   C. $\angle SLY$ and $\angle WLK$

   D. $\angle YLR$ and $\angle YLK$

8. Which pair of adjacent angles are supplementary angles?

   F. $\angle RLK$ and $\angle YLR$

   G. $\angle SLY$ and $\angle YLR$

   H. $\angle RLK$ and $\angle WLK$

   J. $\angle SLW$ and $\angle WLR$

9. Which pair of angles are complementary angles?

   A. $\angle YLS$ and $\angle RLK$

   B. $\angle YLR$ and $\angle YLS$

   C. $\angle SLW$ and $\angle RLK$

   D. $\angle WLK$ and $\angle RLK$

10. The measure of $\angle RLK$ is 38°. What is the measure of $\angle SLY$?

    F. 52° H. 142°

    G. 62° J. 218°

11. The sum of which two angle measures equals the measure of $\angle WLK$?

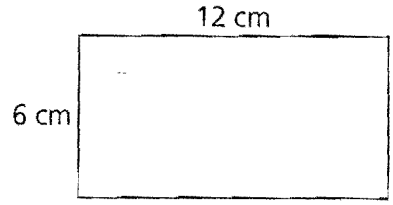
    A. $\angle SLY$ and $\angle YLR$

    B. $\angle SLW$ and $\angle YLR$

    C. $\angle RLK$ and $\angle SLY$

    D. $\angle RLK$ and $\angle YLR$

The figure is a scale drawing of a rectangular room. The scale is 2 cm:4 m. Use the figure for problems 12–14.



12. What is the length of the actual room?

F. 2 meters

G. 6 meters

H. 12 meters

J. 24 meters

13. What is the width of the actual room?

A. 6 meters

B. 12 meters

C. 18 meters

D. 24 meters

14. What is the area of the actual room?

F. 72 square meters

G. 144 square meters

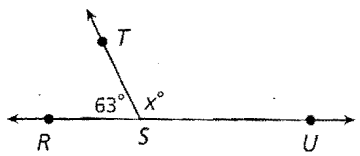
H. 288 square meters

J. 576 square meters

FREE RESPONSE

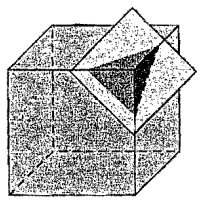
Use the figure for problems 15 and 16.

15. Write and solve an equation to find the measure of $\angle TSU$.



16. Name two ways to describe angles *TSU* and *TSR*. Explain.

17. What shape describes the cross section in the cube below?



18. Name 2 other cross sections shapes that can be made from the cube.

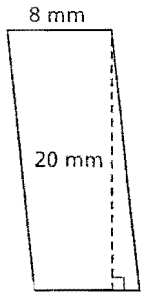
19. Draw a triangle with angle measures of 32°, and 45°, and an included side with a length of 2 inches.

UNIT 5 TEST PREP

Name _____ Class _____ Date _____

MULTIPLE CHOICE

1. Flora is drawing a pattern for a mosaic. What is the area of the pattern?



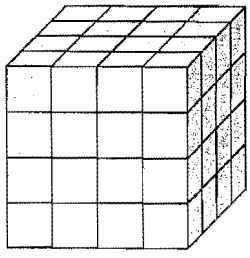
A. 28 square millimeters

B. 140 square millimeters

C. 160 square millimeters

D. 200 square millimeters

2. Ned forms a larger cube from centimeter cubes. What is the surface area of the larger cube?



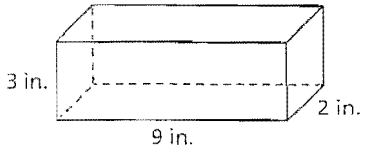
F. 90 square centimeters

G. 96 square centimeters

H. 108 square centimeters

J. 216 square centimeters

3. Maria is wrapping a present for her best friend. How much wrapping paper will she use, not counting overlap?



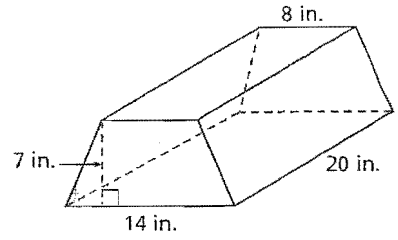
A. 51 square inches

B. 54 square inches

C. 84 square inches

D. 102 square inches

4. Roberto purchases a small toy chest for his children. What is the volume of the toy chest?



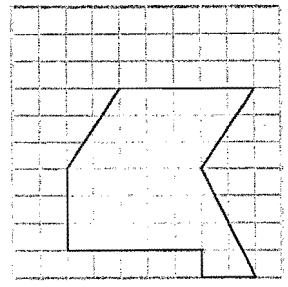
F. 1,120 cubic inches

G. 1,540 cubic inches

H. 1,960 cubic inches

J. 3,080 cubic inches

5. Carol wants to tile her utility room. Each tile is 1 square foot. She draws the shape of her room on a grid. Each square unit on the grid represents 1 square foot. How many tiles will she need?



A. 30

B. 34

C. 38

D. 42

6. A circular mirror has a radius of 6 inches. What is the circumference of the mirror?

F. 3π inches

G. 6π inches

H. 12π inches

J. 36π inches

7. Michael plants a circular garden with a diameter of 10 feet. What is the area of his garden? Use 3.14 for π.

   A. 31.4 square feet

   B. 62.8 square feet

   C. 78.5 square feet

   D. 314 square feet

8. Lyle measures around his bike wheel. Then he measures its diameter. He divides the circumference by the diameter. What was the quotient?

   F. 1 H. 3

   G. 2 J. π

9. A circular quilt is made from 113.04 square feet of fabric. How much trim is needed to go around its edge? Use 3.14 for π.

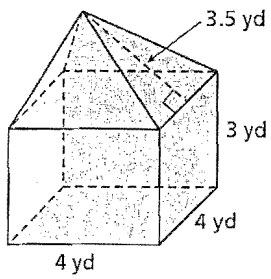
   A. 6 feet

   B. 12 feet

   C. 18.84 feet

   D. 37.68 feet

10. An outdoor shed is a composite figure that has a floor and no windows. What is the surface area of the shed?



   F. 24 square yards

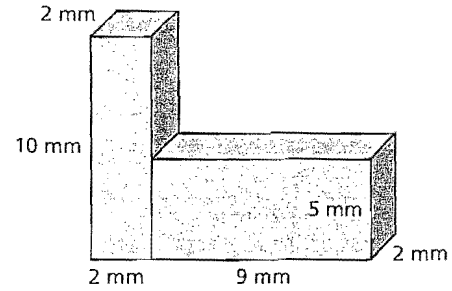
   G. 48 square yards

   H. 76 square yards

   J. 92 square yards

FREE RESPONSE

11. Patrick made a plastic model of his office building. He plans to paint the entire model. Use the model to find the surface area that Patrick will paint. Explain how you found this area.



12. Paul's circular table has a circumference of 50.24 feet. He wants to know if he should buy tablecloth that says it will cover a circular table that is 200 square feet. Should he buy the tablecloth? Explain. Use 3.14 for π.

13. Mary is filling a jar shaped like a square prism with a bag of confetti that is labeled as containing 100 cubic inches. The base of her prism is 3 inches by 3 inches and the height is 10 inches. Will all the confetti fit in the jar? Explain.

UNIT 6 TEST PREP

Name _____ Class _____ Date _____

MULTIPLE CHOICE

1. Which is a measure of center?

   A. distance

   B. mean absolute deviation

   C. mean

   D. sample

2. You want to know the favorite sport of middle school students. Which group would provide a random sample?

   F. the girls' soccer team

   G. the band

   H. every fifth person who leaves the school building at the end of the school day

   J. every tenth person who enters the stadium before a football game

3. How can you make a random sample more accurately reflect the population it represents?

   A. carefully select the data pieces

   B. increase the number of pieces of random data

   C. use a graphing calculator to provide random integers

   D. survey a biased group

4. A department store receives a shipment of 1,000 glasses. Out of a random sample of 10 glasses, 2 are broken. How many glasses would you expect to be broken in the entire shipment?

   F. 2

   G. 50

   H. 200

   J. 250

5. A random sample of a shipment of furniture shows that 2 out of 50 boxes do not contain all of the correct parts. Which proportion could help you find the number of boxes that will not contain the correct parts out of a shipment of 500?

   A. $\frac{2}{50} = \frac{500}{x}$ C. $\frac{50}{500} = \frac{x}{2}$

   B. $\frac{x}{50} = \frac{500}{2}$ D. $\frac{2}{50} = \frac{x}{500}$

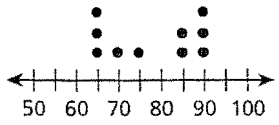
6. A restaurant manager predicts that out of the 200 people that will come to the restaurant in one day, 40 people will order dessert. He based this on a random sample of people he polled yesterday. What ratio could his prediction be based on?

   F. $\frac{1}{5}$ H. $\frac{10}{25}$

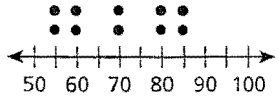
   G. $\frac{7}{10}$ J. $\frac{2}{50}$

7. Maria collects data about the scores on a math test. She finds that the test has a low mean absolute deviation. Which dot plot could represent this data?

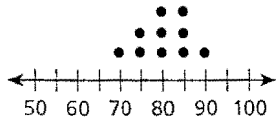
   A.

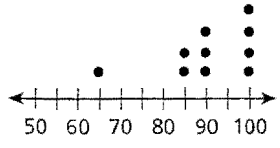
   B.

   C.

   D.

8. What does the mean absolute deviation tell you?

   F. the average of the data

   G. where the data is centered on a number line

   H. how many dots are above each value on a dot plot

   J. how far the data is spread out from the mean

9. A teacher randomly reads 10 one-page reports written by her students. She finds that 3 of the reports have misspellings. How many reports would she expect to have misspellings if she reads 150 reports?

   A. 10 B. 45

   C. 50 D. 100

FREE RESPONSE

Peter records the monthly high temperatures, in degrees Fahrenheit at his house for a year. He calculates the mean to be 63 and the mean absolute deviation to be 4.67.

Jorge records the monthly high temperatures, in degrees Fahrenheit at his house for a year. He calculates the mean to be 63 and the mean absolute deviation to be 21.67.

Use this information for 10–11.

10. How would the dot plots of the data differ for Peter and Jorge?

11. What can you infer from the data about the areas where Peter and Jorge live?

12. Explain why surveying 100 different people from the phone book might not be a random sample.

13. A factory produces 500,000 nails per day. The manager of the factory estimates that there are less than 1,500 misshapen nails made per day. A random survey of 500 nails finds 4 misshapen ones. Is the manager correct in his estimate? Explain.

Jane reports the number of years she has known each person in her close group of friends: 5, 8, 4, 2, 9, 10, 3, 11

Jack reports the same information for his group of friends: 4, 2, 3, 1, 4, 3, 5, 2

Use the data for 14–16.

14. Find the mean and mean absolute value for both Jane's data and Jack's data.

15. How would you expect the data sets' dot plots to compare to each other?

16. What can you infer about both groups of friends?

UNIT 7 TEST PREP

Name _____ Class _____ Date _____

MULTIPLE CHOICE

1. You roll a standard number cube once. Which of the following gives all of the outcomes of the sample space for this experiment?

   A. 1, 2, 3

   B. A, B, C, D

   C. 1, 2, 3, 4, 5, 6

   D. 2, 4, 6, 8, 10

A hat contains 5 red balls, 8 green balls, and 9 yellow balls. Rina chooses one ball at random from the hat. Use this information for 2–5.

2. What is the probability that Rina chooses a green ball?

   F. $\frac{1}{11}$ H. $\frac{9}{22}$

   G. $\frac{4}{11}$ J. $\frac{5}{11}$

3. What is the probability that Rina chooses a red ball or a green ball?

   A. $\frac{13}{22}$ C. $\frac{17}{22}$

   B. $\frac{7}{11}$ D. $\frac{40}{22}$

4. What is the probability that Rina does **not** choose a red ball?

   F. $\frac{5}{22}$ H. $\frac{13}{22}$

   G. $\frac{4}{11}$ J. $\frac{17}{22}$

5. What is the probability that Rina chooses a yellow ball?

   A. $\frac{7}{22}$ C. $\frac{13}{22}$

   B. $\frac{9}{22}$ D. $\frac{17}{22}$

6. A standard number cube is rolled once. What is the probability that a number less than 3 is rolled?

   F. $\frac{1}{6}$ H. $\frac{1}{2}$

   G. $\frac{1}{3}$ J. $\frac{2}{3}$

7. A spinner has white, green, violet, indigo, and blue sections. Which of the following is the complement of the event that the spinner lands on violet?

   A. The spinner lands on green.

   B. The spinner lands on white, green, or indigo.

   C. The spinner lands on white, green, indigo, or blue.

   D. The spinner does not land on blue.

8. The probability that a new car at a local dealership has a bad headlight is 0.003. Which statement best describes the probability of this event?

   F. It is likely that a new car at a local dealership has a bad headlight.

   G. It is unlikely that a new car at a local dealership has a bad headlight.

   H. It is neither unlikely nor likely that a new car at a local dealership has a bad headlight.

   J. It is impossible that a new car at a local dealership has a bad headlight.

9. Which event is impossible?

   A. A bowl has 10 red marbles and 12 green marbles. You choose a red marble from the bowl.

   B. A bag has pieces of paper numbered from 1 to 100. You choose a number divisible by 3.

   C. A spinner has sections lettered A through H. The spinner lands on the 10th letter of the alphabet.

   D. You roll two standard number cubes and the sum of the numbers rolled is 12.

10. At A-1 Truck Dealership, a customer can order a red, turquoise, or green truck. The truck can have leather or cloth seats. A customer can also choose a black, tan, or grey interior color. From how many possible trucks can a customer choose?

F. 8 H. 27

G. 18 J. 36

FREE RESPONSE

11. Yvonne draws a marble from a basket. She records the color and puts the marble back into the basket. The experiment is repeated several times. She records the frequency of each color in the table.

Color	Frequency
Red	7
Yellow	9
Green	14
Purple	10

What is the experimental probability of choosing a green marble?

12. A hockey team has 12 girls and 9 boys. Each week the coach chooses one player at random to play goalie for the next game. What is the probability that the coach chooses a girl to be the goalie for the next game?

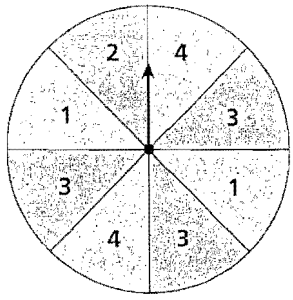
The probability of choosing a 6 at random from a standard deck of playing cards is $\frac{1}{13}$. Use this information for 13 and 14.

13. What is the complement of the event of choosing a 6?

14. What is the probability of the complement of the event of choosing a 6?

15. You roll a standard number cube 1,000 times. Predict the number of times you will roll a 2 or a 5.

Use the spinner for 16 and 17. Tell whether each student is correct and explain.



16. Ashley said, "There are four numbers on this spinner. One of these numbers is 2. Therefore, the probability that this spinner lands on 2 is $\frac{1}{4}$."

17. Suzanne said, "There are two colors on this spinner. One of these colors is blue. Therefore, the probability that this spinner lands on blue is $\frac{1}{2}$."