

TEST NAME: 7th Grade Review
TEST ID: 1676130
GRADE: 07 - Seventh Grade
SUBJECT: Mathematics
TEST CATEGORY: School Assessment

04/19/17, 7th Grade Review

Student: _____

Class: _____

Date: _____

Instructions

Questions 1-15 are **Calculator Inactive**. The calculator tool will **NOT** be available for you to use. PLEASE NOTE: Questions 8-15 are gridded response items.

Questions 16-50 are **Calculator Active**. You may use the calculator tool labeled "Basic" located in the upper right-hand corner of the screen.

GOOD LUCK!!

1.

Number of apples (a)	Cost (c)
2	\$0.32
4	\$0.64
7	\$1.12

The table below shows how much a store charges for certain numbers of apples. Based on the table, which equation could be used to calculate the cost, c , of any number of apples, a ?

- A. $c = 0.08a$
 - B. $c = 0.16a$
 - C. $c = 0.48a$
 - D. $c = 0.64a$
2. Suppose that John can run 50 meters in 10 seconds. Robert can run 18 meters in 4 seconds. Which boy can run faster and by how much?
- A. Robert is 0.5 meters per second faster.
 - B. Robert is 32 meters per second faster.
 - C. John is 0.5 meters per second faster.
 - D. John is 13 meters per second faster.

3. The table below shows the number of tickets sold, t , at a high school basketball game, and the amount of money collected, m .

Tickets Sold (t)	Money Collected (m)
25	\$62.50
35	\$87.50
40	\$100

Which equation will calculate the amount of money collected after t tickets are sold?

- A. $t = 2.50m$
- B. $m = 2.50t$
- C. $m = t + 2.50$
- D. $t = m + 2.50$

4.

Feet of Wiring	Total Cost
2.4	\$2.64
3.6	\$3.96
4.2	\$4.62

David bought the same wiring on 3 different occasions and recorded the data below. What was the price per foot of wiring?

- A. \$1.05
- B. \$1.10
- C. \$1.15
- D. \$1.50

5.

Hours Worked (h)	Amount Earned (E)
15	\$221.25
22	\$324.50
26	\$383.50

Susan earned the amounts listed in the table. Which equation could be used to find the amount of money Susan earns, E , for any number of hours worked, h ?

- A. $E = 14.75 + h$
- B. $E = 22.25 + h$
- C. $E = 14.75h$
- D. $E = 22.25h$

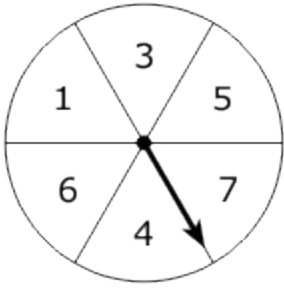
6. A baker made two cakes of the same size.

- At the end of the day, there was $\frac{3}{4}$ of a lemon cake left.
- There was $\frac{5}{8}$ of a blueberry cake left.
- The baker divided the remaining lemon cake into 3 equal pieces and the remaining blueberry cake into 2 equal pieces.

Which cake flavor had larger pieces and by how much?

- A. lemon by $\frac{1}{8}$ of a cake
- B. blueberry by $\frac{1}{8}$ of a cake
- C. lemon by $\frac{1}{16}$ of a cake
- D. blueberry by $\frac{1}{16}$ of a cake

7.



Caroline will spin the spinner below. Which outcome is **most likely** to occur?

- A. spinning an even number
- B. spinning an odd number
- C. spinning a number less than 4
- D. spinning a number greater than 4
8. One lap around a track is equal to one-sixth of a mile. A horse ran a distance of 7 laps in 3 minutes and 20 seconds. What is the horse's average speed in miles per minute?
9. John mixed $\frac{2}{3}$ gallon of blue paint with $1\frac{1}{3}$ gallons of yellow paint to make 2 gallons of green paint.
- He needed more green paint
 - To make a new batch of green paint, he used exactly 1 gallon of yellow paint
- Using the same ratio, how many gallons of blue paint should John use to make the new batch of green paint?
10. A store sells shoes.
- The retail price was a 80% markup over the manufacturer price of \$100.00.
 - A month later, the store reduced the retail price of the shoes by 40%.
- What percent markup is the new retail price over the manufacturer price?

11. Sam had 30 guests at his house for a party. Each guest brought one item.
- One-half of the guests brought drinks.
 - One-third of the guests brought a dessert.
 - The rest of the guests brought chips.

How many guests brought chips?

12. A kitchen is shaped like a rectangle with dimensions of $12\frac{1}{2}$ ft by $8\frac{1}{2}$ ft.

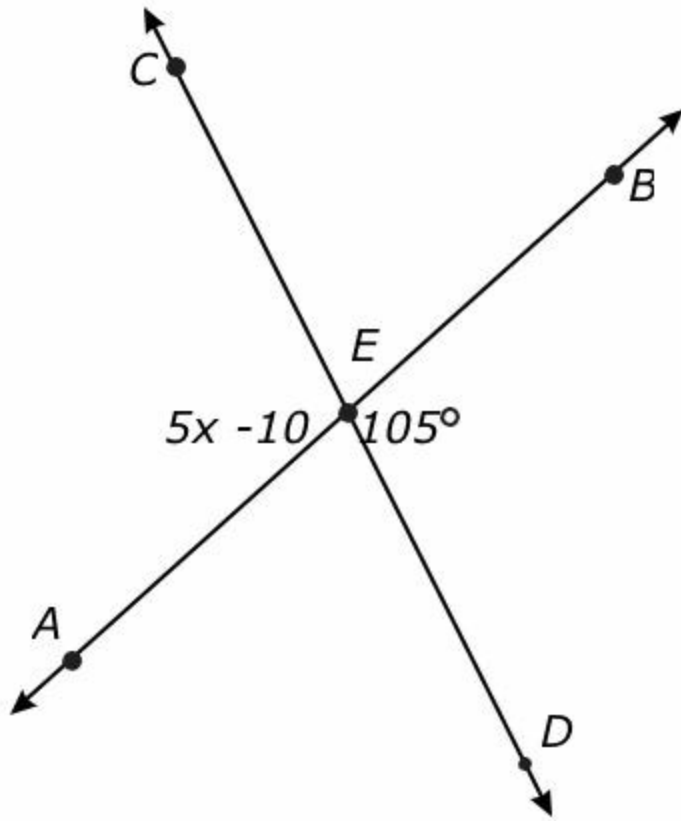
The floor of the room is made of square tiles with a side length of $\frac{1}{2}$ ft.

What is the number of tiles that will cover the kitchen floor?

13. What is the value of $3(5^2 + (\frac{1}{2})^2)$?

14. Fred made a scale drawing of a rectangular room. The actual length of the room is $11\frac{3}{5}$ ft. The scale used to make the drawing was $\frac{1}{2}$ in = 1 ft. What is the length, in inches, of the room on the drawing?

15.



Line AB intersects Line CD at point E . What is the value of x , in degrees?

16. The Smith family went out to dinner.

- The price of the meal was \$36.65.
- The sales tax was 8% of the price of the meal.
- The tip was 15% of the meal and the sales tax.

How much money did the Smith family pay for the meal, including tax and tip?

- A. \$59.65
- B. \$54.58
- C. \$45.52
- D. \$38.95

17. Allison bought 3 posters for \$4.95 each and 1 book for \$12.95. If the sales tax is 6%, what is the total cost of Allison's purchases?
- A. \$18.97
 - B. \$20.85
 - C. \$27.80
 - D. \$29.47
18. Carl works in a furniture store. He earns a base salary of \$750 a week, plus 5% commission on any furniture he sells. Last week he sold \$5,000 worth of furniture. How much money did Carl earn, with base salary and commissions, last week?
- A. \$1,000
 - B. \$1,750
 - C. \$2,250
 - D. \$3,250
19. Find the equivalent expression

Which expression is equivalent to $-3(x + 4) - \frac{1}{2}(4x - 6)$?

- A. $-5x - 24$
- B. $-5x - 9$
- C. $-11x - 24$
- D. $-11x - 9$

20. Calculate the amount remaining in Anne's money jar.

Anne saved \$25 in a jar each month for $3\frac{1}{2}$ years. She spent 60% of her savings on a computer. How much money did Anne have left in the jar?

- A. \$300
- B. \$420
- C. \$630
- D. \$1050

21. What is the price per ticket?

Carl spent \$142 to attend a college basketball game.

- Twenty percent of this cost was for snacks.
- He spent the remainder of the money on two tickets for the game.

What is the price per ticket?

- A. \$14.20
- B. \$28.40
- C. \$56.80
- D. \$113.60

22. When did Donald plant the tree?

When Donald planted a tree it was 30 inches tall. The tree grew $2\frac{3}{4}$ inches per year. The tree is now 52 inches tall. How many years ago did Donald plant the tree?

- A. 6
- B. 7
- C. 8
- D. 9

23. What is the solution to the inequality $-4x - 34 < 22$?

- A. $x < -14$
- B. $x > -14$
- C. $x < 14$
- D. $x > 14$

24. How much did Elliot make on his first day at the berry farm?

Elliot has a summer job to pick berries on a farm.

- He earns \$3.00 for every 20 minutes that he picks blackberries.
- He earns \$2.30 for every 15 minutes that he picks strawberries.
- He picked blackberries for two hours and strawberries for 30 minutes.

How much money did Elliot earn?

- A. \$11.30
- B. \$14.60
- C. \$22.60
- D. \$24.90

25. Which set of numbers cannot be a triangle?

Which choice shows three lengths that **cannot** be the lengths of the three sides of a triangle?

- A. 3 cm, 5 cm, 5 cm
- B. 3 cm, 4 cm, 8 cm
- C. 4 cm, 6 cm, 8 cm
- D. 6 cm, 7 cm, 9 cm

26. Find the radius using the circumference.

The circumference of a circle is 345 feet. What is the **approximate** radius of the circle?

- A. 30 feet
- B. 55 feet
- C. 110 feet
- D. 115 feet

27. Solve for X.

Angles A and B are supplementary. Angle A has a measure of $(7x + 3)^\circ$. Angle B has a measure of 72° . What is the value of x ?

- A. 15
- B. 18
- C. 54
- D. 108

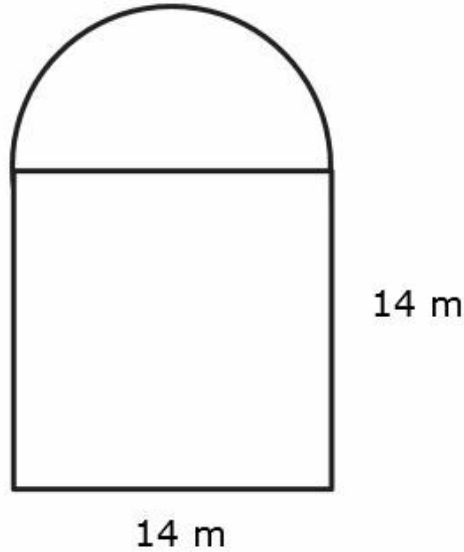
28. Calculate how many 4 inch square tiles you need.

Joe's bathroom floor is 6 feet wide and 11 feet long. He will cover the floor with 4-inch square tiles. How many tiles does Joe need?

- A. 264
- B. 594
- C. 1056
- D. 2376

29. Calculate the area of Bob's yard.

Bob's yard is in the shape of a square and a half-circle.



What is the **approximate** area of Bob's yard?

- A. $273m^2$
- B. $350m^2$
- C. $650m^2$
- D. $1103m^2$
30. Brooke wants to buy a toy for her five-year-old nephew. She decides to conduct a survey at a mall to find out which toys are most popular. Which sample would **best** represent the population?
- A. teenagers in the food court
- B. people with children in the parking lot
- C. customers at a clothing store
- D. customers at a book store

31.

Becky	Vince
12	16
6	12
14	8
16	6
8	10

In the table, Becky and Vince recorded the number of points they received while playing a game. What is the difference between the mean absolute deviation of Becky's points and the mean absolute deviation of Vince's points?

- A. 4.0
 - B. 2.0
 - C. 0.80
 - D. 0.48
32. Chad will flip a coin and roll a number cube labeled 1 through 6. What is the probability that the coin will land on heads and the number cube will land on an even number?
- A. 1
 - B. $\frac{1}{2}$
 - C. $\frac{1}{4}$
 - D. $\frac{1}{12}$

33.

Rachel's Test Scores	94	97	88	91	81
Barbara's Test Scores	96	92	88	92	78

Rachel and Barbara recorded their scores on the first five math tests of the school year. Which statement is true about the girls' scores?

- A. Rachel's mean score is one point less than Barbara's mean score.
 - B. Rachel's median score is the same as Barbara's median score.
 - C. Rachel's mean score is one point greater than Barbara's mean score.
 - D. Rachel's median score is one point greater than Barbara's median score.
34. Joe is buying a jacket that originally costs \$59.27 but is on sale for 10% off. Sales tax is 7%. What is the total cost of the jacket?
- A. \$49.19
 - B. \$49.61
 - C. \$57.08
 - D. \$57.49
35. Which expression is equivalent to $-6x - 10(x - 4)$?
- A. $-16x + 40$
 - B. $-4x + 40$
 - C. $-16x - 4$
 - D. $-4x - 4$

36. Helen earns \$1,840 per month, after taxes. Of her monthly pay, 45% is for rent, $\frac{1}{10}$ is for utilities, and one-fifth is for food. How much money does Helen have left over after all these expenses?

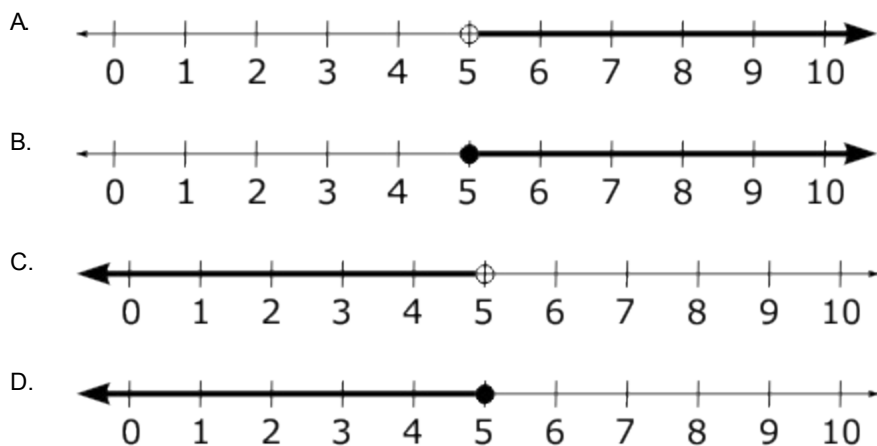
- A. \$460.00
- B. \$728.64
- C. \$828.00
- D. \$833.52

37. What is the value of z in the equation below?

$$28 = 4z - 12$$

- A. - 4
- B. 4
- C. 5
- D. 10

38. Which graph shows the solution to $-3x - 5 \leq -20$?



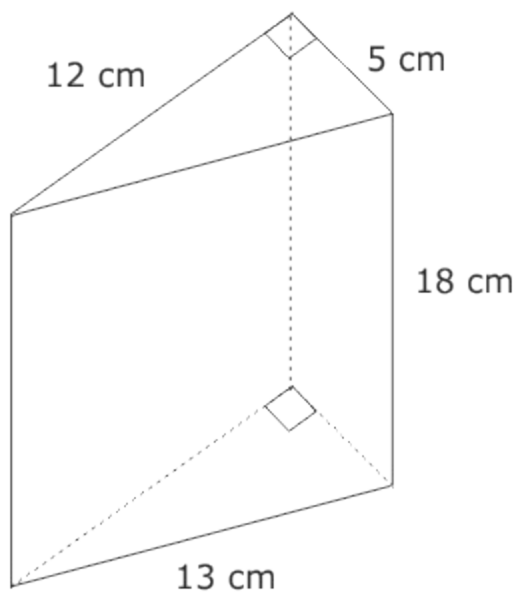
39. Mr. Johnson is 8 years older than 5 times Waylon's age. Mr. Johnson is 63 years old. How old is Waylon?

- A. 11 years old
- B. 14 years old
- C. 21 years old
- D. 23 years old

40. Which expression is equivalent to $4h + 18 - 3(2h - 4)$?

- A. $-2h + 14$
- B. $-2h + 30$
- C. $10h + 14$
- D. $10h + 30$

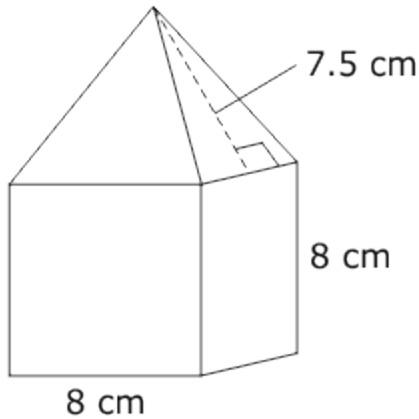
41.



A triangular prism is shown. What is the volume of the triangular prism?

- A. 540 cm^3
- B. 585 cm^3
- C. $1,080 \text{ cm}^3$
- D. $1,170 \text{ cm}^3$

42.



The figure is made up of a cube and a pyramid. The outer surface of the figure will be painted. How much of the total area will be painted?

- A. 504 cm^2
 - B. 480 cm^2
 - C. 440 cm^2
 - D. 376 cm^2
43. A plane intersects a rectangular pyramid perpendicular to its base, but not through the vertex. The plane forms a cross section. What is the shape of the cross section?
- A. triangle
 - B. trapezoid
 - C. square
 - D. rectangle
44. A rectangular room measures 20 ft by 10 ft. On a scale drawing, the scale is $2.5 \text{ cm} = 8 \text{ ft}$. What is the **approximate** area of this room on the scale drawing?
- A. 3 cm^2
 - B. 20 cm^2
 - C. 32 cm^2
 - D. 63 cm^2

45. What is the **approximate** circumference of the circle that has a center at $(5, 2)$ and passes through the point $(-2, 2)$?
- A. 16 units
 - B. 22 units
 - C. 44 units
 - D. 154 units

46. **Candy Bars Sold**

Beverly	Daniel
14	13
15	13
15	15
16	18
20	19
21	20
25	22

In the table, Beverly and Daniel recorded the number of candy bars they sold each day for a school fundraiser. Based on the table, which statement is true?

- A. The median numbers of candy bars sold by Beverly and Daniel are the same.
- B. The median number of candy bars sold by Beverly is less than the median number of candy bars sold by Daniel.
- C. The median number of candy bars sold by Beverly is greater than the median number of candy bars sold by Daniel.
- D. The range of candy bars sold by Daniel is greater than the range of the candy bars sold by Beverly.

47.

Logan's Quiz Scores

	1	2	3	4	5	6	7	8
English	90	80	60	89	70	69	70	80
Math	75	85	61	83	72	64	72	80

Logan recorded his last 8 quiz scores in English and math in the table. In which class does Logan have a higher mean quiz score and by how much?

- A. Logan's mean quiz score in English is 2 points higher than in math.
- B. Logan's mean quiz score in math is 2 points higher than in English.
- C. Logan's mean quiz score in English is 3 points higher than in math.
- D. Logan's mean quiz score in math is 3 points higher than in English.

48.

Lunch Menu

Main Entree	Side Item	Beverage
pizza slice chicken sandwich salad	french fries chips	bottled water tea soda

A restaurant's lunch menu is shown in the table. If a lunch consists of one entree item, one side item, and one beverage, how many different lunches are available at this restaurant?

- A. 6
- B. 8
- C. 9
- D. 18

49. Julie has a stack of 14 cards. Each card is labeled with one letter, A through N, alphabetically. If a card is chosen randomly, what is the probability the card will have a vowel on it? (Note: vowels are A, E, I, O, and U)

A. $\frac{1}{7}$

B. $\frac{3}{14}$

C. $\frac{2}{7}$

D. $\frac{5}{14}$

50. A book costs \$7.50 plus sales tax. After sales tax, the book costs \$7.95. What is the sales tax rate?

A. 4%

B. 5%

C. 6%

D. 7%