Name_____ Period _____

25 Questions EOG Review #1

EOG REVIEW

Solve each: Give the BEST Answer.

1. Represent $\frac{29}{5}$ as a percent:

a. 58% **b.** 580% **c.** 17.24% **d.** 5.8%

_____

2. A rectangle is 24 meters long. It has a diagonal that is 25 meters. How wide is it?

a. 49 meters **b.** 7 meters **c.** 35 meters **d.** 1 meter

_____

3. A rectangle has a length of 5x and a width of 3x. The perimeter is 32 inches. What are the dimensions of the rectangle?

a. 6 in by 10 in **b.** 5 in by 3 in **c.** 15 in by 9 in **d.** 10 in by 22 in

_____

4. Find the value of x in this equation: $8 - x = \frac{3}{5}$

a. $\frac{3}{5}$ **b.** $7\frac{2}{5}$ **c.** $\frac{2}{5}$ **d.** $7\frac{3}{5}$

_____

5. Which ordered pair satisfies the inequality: $y \leq 3x + 5$

a. (2, 12) **b.** (-5, -5) **c.** (0, 6) **d.** (-1, 1)

_____

6. A rectangular prism has edges of 2, 3, and 4cm. If each edge is increased by 50%, by what factor is the volume increased?

a. 0.125 **b.** 1.5 **c.** 2.25 **d.** 3.375

_____

Name_____ Period _____

25 Questions EOG Review #1

EOG REVIEW

7. What is the slope of the line passing through (-9, 3) and (5,-7)?

a. $-\frac{5}{7}$ **b.** $\frac{5}{7}$ **c.** $-\frac{2}{7}$ **d.** $\frac{2}{7}$

_____

8. Which of the lines below is parallel to $y=-\frac{2}{3}x+7$?

a. $2x-3y=5$ **b.** $2x+3y=5$ **c.** $3x-2y=5$ **d.** $3x+2y=5$

_____

9. The radius of a cylinder is 5 inches and the height is 7 inches. What is the volume of the cylinder?

a. 35π in^3 **b.** 70π in^3 **c.** 175π in^3 **d.** 245π in^3

_____

10. Martha got 68% of her answers correct on a 75 question test. How many answers did she get *incorrect*?

a. 68 **b.** 51 **c.** 19 **d.** 24

_____

11. Triangle ABC is plotted on the coordinate plane with the coordinates **A**(3, -6) **B**(-2, 8) **C**(4, -1). Which of the coordinates below would be a vertex of triangle A'B'C' after a dilation with a scale factor of 2.5?

a. (6, -2.5) **b.** (7.5, -9) **c.** (-5, 20) **d.** (10, 2.5)

_____

12. Calculations show that the height of a building is $\sqrt{14{,}600}$ feet. About how tall is the building?

a. 120 feet **b.** 2,131,600 feet **c.** 125 feet **d.** 1,208 feet

_____

13. How can you rewrite the expression $4(x+6)$ using the distributive property?

a. $(x+6)4$ **b.** $4(6+x)$ **c.** $4x+24$ **d.** $4x+6$

_____

Name_____ Period _____

25 Questions EOG Review #1

EOG REVIEW

14. The sides of a rectangle are represented by x and 5x. What is the area of the rectangle?

a. $5x^2$ **b.** $6x$ **c.** $6x^2$ **d.** $12x$

_____

15. The sides of a rectangle are represented by 3x and 4y. What is the perimeter of the rectangle?

a. $6x+8y$ **b.** $7xy$ **c.** $3x+4y$ **d.** 14

_____

16. Simplify $4z+5x+3y-2x-2y+3z+1$

a. $3x+y+7z+1$ **b.** $7x+5y+7z+1$ **c.** $12xyz$ **d.** $3x+5y+7z+1$

_____

17. Brian's sister is 4 inches shorter than half his height. If Brian's sister is 32 inches tall, how tall is Brian?

a. 72 inches **b.** 12 inches **c.** 68 inches **d.** 36 inches

_____

18. A pole is supported by a wire that is 15 feet long, and attached 12 feet from the base of the pole. How high on the pole is the wire attached?

a. 9 feet **b.** 27 feet **c.** 81 feet **d.** 19.2 feet

_____

19. An 18-foot tall antenna is supported by a wire from the top of the antenna attached 24 feet from its base. How long is the wire?

a. 30 feet **b.** 6 feet **c.** 16 feet **d.** 42 feet

_____

20. Solve: $6.8 \le 1.5x+2$

a. $3.2 \le x$ **b.** $3.2 \ge x$ **c.** $5.8\overline{6} \le x$ **d.** $5.8\overline{6} \ge x$

_____

Name_____ Period _____

25 Questions EOG Review #1

EOG REVIEW

21. Which of the values below is largest?

a. $\sqrt{116}$ **b.** $10.\overline{7}$ **c.** 10.7 **d.** $\frac{32}{3}$

_____

22. Convert to Standard Form: $y-3=-\frac{1}{5}(x-7)$

a. $x+5y=22$ **b.** $x-5y=22$ **c.** $x-5y=4$ **d.** $x-5y=-4$

_____

23. Which of the following represents 243?

a. -3^5 **b.** $\left(3^3\right)^2$ **c.** $3^2\cdot 3^3$ **d.** $3\left(-3^5\right)$

_____

24. What is the perimeter of a square whose sides are $2\frac{1}{3}$ inches long?

a. $8\frac{5}{6}in$ **b.** $\frac{49}{9}in$ **c.** $4\frac{2}{3}in$ **d.** $9\frac{1}{3}in$

_____

25. The sides of a square are doubled in length, and the resulting square has an area of 60in^2. What was the area of the original square?

a. 3.9in^2 **b.** 15in^2 **c.** 30in^2 **d.** 56.25in^2

_____

Name_____ Period _____

25 Questions EOG Review #2

EOG REVIEW

Solve Each: Give the BEST Answer.

1. Which of the following numbers is rational?

a. $2\sqrt{3}$ **b.** 2π **c.** $3.1\overline{4}$ **d.** $0.123456...$

_____

2. A rectangle is 16 meters long. It has a diagonal that is 20 meters long. How wide is it?

a. 36 meters **b.** 4 meters **c.** 25.6 meters **d.** 12 meters

_____

3. A rectangle has a length of 3x and a width of 6x. Its area is 162in^2. What are the dimensions of the rectangle?

a. 27 in by 54 in **b.** 2 in by 81 in **c.** 6 in by 27 in **d.** 9 in by 18 in

_____

4. Find the value of x in this equation: $8 - 2x = 1\frac{1}{5}$

a. $4\frac{3}{5}$ **b.** $5\frac{2}{5}$ **c.** $3\frac{2}{5}$ **d.** $5\frac{3}{5}$

_____

5. Which ordered pair satisfies the inequality: $y \leq -3x + 5$

a. (2, 1) **b.** (-5, 21) **c.** (0, 6) **d.** (-1, 1)

_____

6. Which of the variables below would generally show a positive correlation when compared on a scatter plot?

a. Child's age vs. Year of Birth. **b.** Child's age versus Phone Number **c.** Child's age versus Height **d.** None of these.

_____

Name_____ Period _____

25 Questions EOG Review #2

EOG REVIEW

7. Which of the equations below are perpendicular lines?

1. $3x+2y=12$
2. $3x-2y=12$
3. $2x+3y=12$

a. 1 and 2 **b.** 2 and 3 **c.** 1 and 3 **d.** None of these.

_____

8. Which of the equations below represents a line with a slope of -2 and passes through the point (-1, 5)?

a. $2x-y=3$ **b.** $2x-y=-3$ **c.** $2x+y=9$ **d.** $2x+y=3$

_____

9. Solve for x: $-2x+5\leq 3$

a. $x\geq 1$ **b.** $x\leq 1$ **c.** $x\leq -1$ **d.** $x\geq -1$

_____

10. The formula used to find the area of a trapezoid is $A=\frac{1}{2}h(b_1+b_2)$ where b_1 and b_2 are the parallel sides and h is the height. If a trapezoid has height 7cm, area 42cm^2, and one of its parallel sides is 4cm long, what is the length of its other parallel side?

a. 5cm **b.** 6cm **c.** 7cm **d.** 8cm

_____

11. A pentagon whose sides are 7 inches long has an area of about 84 square inches. What would be the approximate area of a pentagon whose sides are 10 inches long?

a. 120 in^2 **b.** 142 in^2 **c.** 171.4 in^2 **d.** 244.9 in^2

_____

12. The shadow cast by a building is 192 feet long. If a 6-foot pole casts a 9-foot shadow, how tall is the building?

a. 3.5 feet **b.** 115.2 feet **c.** 128 feet **d.** 288 feet

_____

Name_____ Period _____

25 Questions EOG Review #2

EOG REVIEW

13. On a scatter plot, the x-axis represents age in months, and the y-axis represents weight in pounds for 50 polar bear cubs. The line of best fit is graphed with a slope of 2.35 (lbs/mo) and a y-intercept of 8.5. What is the estimated weight in pounds of a 6-month-old polar bear cub according to the line of best fit?

a. 14.1 pounds **b.** 22.6 pounds **c.** 51.0 pounds **d.** 53.4 pounds

_____

14. The sides of a rectangle are represented by 2x and 5x. If the perimeter of the rectangle is 70 inches, what is its diagonal length to the tenth of an inch?

a. 22.9in **b.** 26.9in **c.** 32.1in **d.** 45.8in

_____

15. The sides of a rectangle are represented by 5x and 4y. Express the perimeter of the rectangle:

a. $5x+4y$ **b.** $20xy$ **c.** $10x+8y$ **d.** 20

_____

16. Simplify $4z+5x+3y-2x+2y+3z+1$

a. $3x+y+7z+1$ **b.** $7x+5y+7z+1$ **c.** $12xyz$ **d.** $3x+5y+7z+1$

_____

17. Brian's sister is 4 inches shorter than half his height. If Brian's sister is 34 inches tall, how tall is Brian?

a. 76 inches **b.** 30 inches **c.** 38 inches **d.** 72 inches

_____

18. The original coordinates of triangle ABC are A(-8,2), B(-2, 4), and C(-6, 6). The triangle is dilated creating triangle A'B'C' with new coordinates A' (-28, 7), B'(-7, 14) and C'(-21, 21). What scale factor was used to create the dilation?

a. $3\frac{1}{2}$ **b.** $-3\frac{1}{2}$ **c.** $\frac{2}{7}$ **d.** $-\frac{2}{7}$

_____

19. Maury runs 180 yards, takes a right turn and runs 50 yards, and then runs directly back to where he started from. If he runs 8 yards per second, how long does the entire run take (to the nearest second)?

a. 29 seconds **b.** 45 seconds **c.** 52 seconds **d.** 65 seconds

_____

Name_____ Period _____

25 Questions EOG Review #2

EOG REVIEW

20. Solve: $9.5 \le 1.5x + 2$

a. $5 \le x$ **b.** $5 \ge x$ **c.** $7.\overline{6} \le x$ **d.** $7.\overline{6} \ge x$

_____

21. Which of the linear equations below does NOT represent a function?

a. y=x **b.** y=3 **c.** x=3 **d.** y=x+3

_____

22. What is the slope of the line of best fit for the data in the table below to the tenth?

x	19.1	24.9	28.1	53.7	59.2
y	39.4	58.1	67.3	147.9	163.0

a. 2.9 **b.** 3.0 **c.** 3.1 **d.** 3.2

_____

23. Which of the following is equal to 3^7?

a. -3^7 **b.** $(3^3)^4$ **c.** $3^2 \cdot 3^5$ **d.** $\frac{3^{-5}}{3^2}$

_____

24. What is the area of a square whose sides are $2\frac{1}{4}$ inches long?

a. $8\frac{3}{4} in^2$ **b.** $\frac{81}{16} in^2$ **c.** $9in^2$ **d.** $9\frac{1}{4} in^2$

_____

25. Which of the following represents a rational number that is not an integer?

a. $-\sqrt{2401}$ **b.** $\frac{54}{9}$ **c.** $\sqrt{250}$ **d.** $\frac{480}{36}$

_____

Name_____ Period _____

25 Questions EOG Review #3

EOG REVIEW

Solve Each: Give the BEST Answer.

1. Which of the following numbers is irrational?

a. 2.345 **b.** $\sqrt{121}$ **c.** $\frac{22}{7}$ **d.** $\frac{\sqrt{5}}{2}$

1._____

2. A rectangle is 15 meters long. It has a diagonal that is 25 meters long. What is its area?

a. 20 meters^2 **b.** 300 meters^2 **c.** 400 meters^2 **d.** 435 meters^2

2._____

3. A rectangle has a length of 2x and a width of 5x. Its area is 90in^2.
What are the dimensions of the rectangle?

a. 9 in by 10 in **b.** 6 in by 15 in **c.** 3 in by 30 in **d.** 5 in by 18 in

3._____

4. Find the value of x in this equation: $2x - 8 = 1\frac{1}{5}$

a. $9\frac{1}{5}$ **b.** $2\frac{3}{10}$ **c.** $2\frac{3}{5}$ **d.** $4\frac{3}{5}$

4._____

5. Which ordered pair satisfies the inequality: $y \leq -3x + 5$

a. (-1, 3) **b.** (1, 3) **c.** (3, -1) **d.** All of these.

5._____

6. Which of the equations below are parallel lines when graphed on the coordinate plane?

1. $3x + 2y = 12$
2. $3x - 2y = 12$
3. $y = \frac{2}{3}x + 12$

a. 1 and 2 **b.** 2 and 3 **c.** 1 and 3 **d.** None of these.

6._____

Name_____ Period _____

25 Questions EOG Review #3

EOG REVIEW

7. Which of the equations below represents a line with a slope of -1 and passes through the point (-2, 11)?

a. $x-y=13$ **b.** $x-y=-13$ **c.** $x-y=9$ **d.** $x+y=9$

7._____

8. Solve for x: $-\frac{2}{3}x+5\le 3$

a. $x\ge 3$ **b.** $x\le 3$ **c.** $x\le -3$ **d.** $x\ge -3$

8._____

9. The area of a regular hexagon can be found using the formula $A=\frac{3s^2\sqrt{3}}{2}$. What is the approximate side length of a regular hexagon whose area is 50cm^2?

a. 2.2cm **b.** 4.4cm **c.** 9.6cm **d.** 19.2cm

9._____

10. Which of the following represents an integer that is not a whole number?

a. $-\sqrt{\frac{25}{16}}$ **b.** $\frac{54}{9}$ **c.** $\sqrt{-25}$ **d.** $-\sqrt{\frac{16}{4}}$

10._____

11. The scale on a map states that ½ inch equals 350 yards. It is 1,925 yards from your house to the store. How many inches apart are your house and the store on the map?

a. 2.5 inches **b.** 2.75 inches **c.** 5 inches **d.** 11 inches

11._____

12. The line of best fit for a scatter plot is $y=-0.21x+11.54$. What type of correlation does the scatter plot display?

a. Positive **b.** Negative **c.** None **d.** Indeterminate

12._____

13. The sides of a rectangle are represented by 2x and 5x. If the perimeter of the rectangle is 70 inches, what is its area?

a. 25in^2 **b.** 35in^2 **c.** 250in^2 **d.** 1,000in^2

13._____

Name_____ Period _____

25 Questions EOG Review #3

EOG REVIEW

14. The volume of a sphere is given by $V = \frac{4}{3}\pi r^3$. Find the radius of a sphere with volume 288π cm³.

a. 6cm **b.** 6.6cm **c.** 12cm **d.** 17cm

14._____

15. The area of a rectangle is 12in². Which of the following values *could* be the rectangle's perimeter?

a. $7in$ **b.** $8in$ **c.** $10in$ **d.** $16in$

15._____

16. Simplify $4z+5x-3y-2x+2y+3z+1$

a. $3x-y+7z+1$ **b.** $7x-y+7z+1$ **c.** $3x-5y+7z+1$ **d.** $3x-y-z+1$

16._____

17. In a competition, Jeremy ate five times as many hotdogs as Angie, who ate three less hotdogs than Jan. If Jan had eight hot dogs, how many did Jeremy eat?

a. 55 **b.** 43 **c.** 37 **d.** 25

17._____

18. Michael drives 3 miles north, turns east and drives 7 miles, then turns south and drives 11 miles. About how far from his starting location is Michael?

a. 10.6 miles **b.** 13.0 miles **c.** 13.4 miles **d.** 15.7 miles

18._____

19. Based on the table of data below, how much will a 95 minute phone call cost?

cost ($)	1.24	3.00	6.30	6.96	7.29
minutes	9	25	55	61	64

a. $10.67 **b.** $10.68 **c.** **$**10.69 **d.** $10.70

_____

20. Which of the following is equal to $(5\cdot 5\cdot 5)^3$?

a. 5^6 **b.** 5^9 **c.** 5^{27} **d.** 25^3

_____

Name_____ Period _____

25 Questions EOG Review #3

EOG REVIEW

21. Solve for x in the following equation if a=3: $a = \frac{3x-9}{2}$

a. x=2 **b.** x=5 **c.** x=8 **d.** x=11

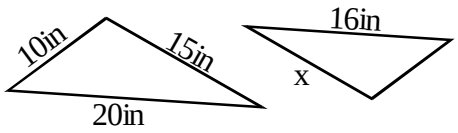
21._____

22. Kristy wants to determine the favorite television show for all of the students at her school. She asks students to choose their favorite show in a survey. Since she cannot interview everyone in the school, which of the following groups would be the best sample set to complete the survey?

a. Every student in her 7th grade homeroom class.
a. All of the students who ride her bus to school.
c. Members of the video production class who watch television.
d. One randomly selected student from each table in the cafeteria.

22._____

23. What is the missing length x in the pair of similar triangles below?



a. $8\ in$ **b.** $8\frac{2}{3}in$ **c.** $10\frac{2}{3}in$ **d.** $12\ in$

23._____

24. What is the slope of a line through the points (-3,2) and (6, -3)?

a. $-\frac{5}{9}$ **b.** $-\frac{5}{3}$ **c.** $-\frac{1}{9}$ **d.** $\frac{1}{3}$

24._____

25. The daily cost of a rental car is dependent on the number of miles you drive it. After a daily fee, you pay a certain amount per mile. On Monday you drive 40 miles and pay $40. On Tuesday you drive just 10 miles and pay $25. Which equation below represents the cost of rental (c) based on the number of miles you drive (m)?

a. c=0.50m + 20 **b.** c=1.00m + 20 **c.** c=1.50m + 20 **d.** c=2.00m + 20

25._____

Name_____ Period _____

25 Questions EOG Review #4

EOG REVIEW

Solve each: Give the BEST Answer.

1. Which of the following numbers is irrational?

a. 3.14 **b.** π **c.** $\frac{22}{7}$ **d.** $3.1\overline{4}$

1._____

2. A rectangle is 30 meters long. It has a diagonal that is 40 meters long. What is its width?

a. 10 meters **b.** 26.5 meters **c.** 50 meters **d.** 700 meters

2._____

3. Which of the following expressions represents a whole number?

a. $6-9$ **b.** $\frac{2\pi}{\pi}$ **c.** $\frac{\sqrt{25}}{\sqrt{5}}$ **d.** $\frac{11}{22}$

3._____

4. What is the slope of the line perpendicular to y=-2x+3?

a. $\frac{1}{2}$ **b.** -2 **c.** $-\frac{1}{2}$ **d.** 2

4._____

5. Which ordered pair satisfies the inequality: $y \geq -3x+5$

a. (3, 1) **b.** (1, 3) **c.** (3, -1) **d.** All of these.

5._____

6. Which of the equations below are parallel lines?

1. $3x+2y=12$
2. $2x-3y=12$
3. $y=\frac{2}{3}x+12$

a. 1 and 2 **b.** 2 and 3 **c.** 1 and 3 **d.** None of these.

6._____

Name_____ Period _____

25 Questions EOG Review #4

EOG REVIEW

7. Which of the equations below represents a line with a slope of 1 and passes through the point (2, -11)?

a. $x-y=13$ **b.** $x-y=-13$ **c.** $x-y=-9$ **d.** $x+y=-9$

7._____

8. Solve for x: $-\frac{2}{3}x-5\le 3$

a. $x\ge -12$ **b.** $x\le -12$ **c.** $x\ge 12$ **d.** $x\le 12$

8._____

9. The volume of a cylinder is 5in^3. If the radius is doubled, what will be the volume of the new cylinder?

a. 10 in^3 **b.** 20 in^3 **c.** 25 in^3 **d.** 40 in^3

9._____

10. Which of the following represents a rational number that is not a whole number?

a. $-\sqrt{\frac{400}{25}}$ **b.** $\frac{21}{7}$ **c.** $\sqrt{2}$ **d.** 5π

10._____

11. Based on the table of data below, what equation would represent the cost *c* of a cab ride based on the number of miles *m* driven?

cost ($)	6.45	7.20	12.75	12.15	13.35
miles	2.3	2.8	6.5	6.1	6.9

a. c=1.5m **b.** c=1.5m+3 **c.** c=3m-.45 **d.** c=m+4.15

11._____

12. A rectangle has its length doubled and its width tripled, and the resulting area is 54in^2. What was the rectangle's original area?

a. 6in^2 **b.** 9in^2 **c.** 108in^2 **d.** 324in^2

12._____

Name_____ Period _____

25 Questions EOG Review #4

EOG REVIEW

13. The area of a rectangle is 18in^2. Which of the following values *could* be the rectangle's perimeter?

a. 9in **b.** 11in **c.** 22in **d.** None of these.

13._____

14. Simplify $x-3(x+5)$

a. $-2x+5$ **b.** $-2x-15$ **c.** $-2x+15$ **d.** $-3x-15$

14._____

15. Which expression represents the following statement: Five more than the product of x and 3.

a. 5(x+3) **b.** 3x+5 **c.** 3(x+5) **d.** 5(3x)

15._____

16. Based on the table of data below, what is the charge per minute of a phone call?

cost ($)	1.33	3.25	6.85	7.57	7.93
minutes	9	25	55	61	64

a. $0.10 **b.** $0.11 **c.** $0.12 **d.** $0.25

16._____

17. Based on the table of data below, about how many pounds will a year-old calf weigh?

weight (lbs)	34.2	59	71.4	83.8	96.2
age (months)	1	5	7	9	11

a. 102.4 **b.** 103.2 **c.** 104 **d.** 130.4

17._____

18. Which equation represents the data in the table below?

x	**y**
-6	11
-9	13
15	-3
21	-7
3	5

a. $y=-\frac{2}{3}x+7$ **b.** $y=\frac{2}{3}x+15$ **c.** $y=\frac{3}{2}x+20$ **d.** $y=-\frac{3}{2}x+2$

18._____

Name_____ Period _____

25 Questions EOG Review #4

EOG REVIEW

19. Which of the equation below represents a horizontal line?

a. $y = x$ **b.** $y = -x$ **c.** $y = 3$ **d.** $x = 3$

19._____

20. The equation $2x - y = 9$ is shifted up 3 units on the coordinate plane. What is the resulting y-intercept?

a. -12 **b.** -9 **c.** -6 **d.** 12

20._____

21. Which equation below is a linear equation?

a. $y = x^2$ **b.** $x - y = \sqrt{9}$ **c.** $y = \frac{1}{x}$ **d.** $y^2 = x$

21._____

22. Which line of best fit could represent a scatter plot showing positive correlation?

I. $y = x + 7$

II. $y = 2x + 8$

III. $y = 3x - 9$

a. II only **b.** I and II **c.** II and III **d.** I, II, and III

22._____

23. Which best represents the slope of the line of best fit for the data below?

height (in)	2.17	2.77	3.34	3.84	4.43
age (weeks)	3	5	7	9	11

a. 0.24 **b.** 0.26 **c.** 0.28 **d.** 0.31

23._____

24. Solve for x in the following inequality when y=-9: $\frac{xy}{2} > 18$

a. x>4 **b.** x>-4 **c.** x<4 **d.** x<-4

24._____

Name_____ Period _____

25 Questions EOG Review #5

EOG REVIEW

Solve each: Give the BEST Answer.

1. Which of the following numbers is greatest?

a. 3.14 **b.** π **c.** $\frac{22}{7}$ **d.** $3.1\overline{4}$

1._____

2. A rectangle is 30 meters long. It has a diagonal that is 40 meters long. What is its width?

a. 10 meters **b.** 26.5 meters **c.** 50 meters **d.** 700 meters

2._____

3. Which of the following expressions represents a whole number?

a. $\sqrt{45}\cdot\sqrt{3}$ **b.** $\sqrt{5}\cdot\sqrt{40}$ **c.** $\sqrt{20}\cdot\sqrt{5}$ **d.** $\sqrt{24}\cdot\sqrt{4}$

3._____

4. What is the slope of the line perpendicular to $2x-y=3$?

a. -2 **b.** $-\frac{1}{2}$ **c.** $\frac{1}{2}$ **d.** 2

4._____

5. The ordered pair (-3, 4) is a solution to which of the following inequalities?

a. $x+y>2$ **b.** $x-y>2$ **c.** $y-x>2$ **d.** All of these

5._____

6. Which of the equations below are perpendicular to the equation $5x-3y=15$?

A. $5x+3y=15$

B. $3x-5y=15$

C. $y=\frac{5}{3}x-15$

a. A. **b.** B. **c.** C. **d.** None of these.

6._____

Name_____ Period _____

25 Questions EOG Review #5

EOG REVIEW

7. Which variable would most likely show a positive correlation with the number of miles driven on a family vacation:

a. Gas price. **b.** Gas used. **c.** Temperature. **d.** Miles per gallon.

7._____

8. At her lemonade stand, Lucy sells lemonade for $0.40 a cup. It cost Lucy $6 for supplies. Which function equation below represents Lucy's profit after selling c cups of lemonade?

a. $f(c) = 0.40c$ **b.** $f(c) = 0.40c + 6$ **c.** $f(c) = 0.40c - 6$ **d.** $f(c) = 6 - 0.40c$

8._____

9. To manufacture a stop sign that is 2 feet wide requires 8 square feet of sheet metal. How many square feet of sheet metal would be necessary to manufacture a similar stop sign that was 3 feet wide?

a. 12 ft^2 **b.** 16 ft^2 **c.** 18 ft^2 **d.** 27 ft^2

9._____

10. On a number line, which of the following would be between 3 and π ?

a. $\frac{29}{9}$ **b.** $\frac{2\sqrt{21}}{3}$ **c.** $2\sqrt{3}$ **d.** $\sqrt{10}$

10._____

11. Whic is the best approximation of the cost of a 30-minute phone call based on the table of data below??

cost ($)	0.65	1.00	1.70	4.50	6.60
minutes	5	10	20	60	90

a. $2.20 **b.** $2.30 **c.** $2.40 **d.** $2.50

11._____

12. By what percent must the lengths of all four sides of a rectangle be increased in order to approximately triple the area of the rectangle?

a. 50% **b.** 66% **c.** 73% **d.** 125%

12._____

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13. Which of the following points is on the line which passes through (2, 6) and (-2, 14) ?

a. (1, 7) **b.** (0, 11) **c.** (-1, 13) **d.** (-3, 16)

13._____

14. What are the coordinates of the point where $2x - y = 6$ crosses the x-axis?

a. (3, 0) **b.** (-3, 0) **c.** (-6, 0) **d.** (6, 0)

14._____

15. A small cylinder holds one gallon of water. How many gallons would it take to fill a cylinder that is twice as tall with twice the radius of the smaller cylinder?

a. 2 gallons **b.** 4 gallons **c.** 6 gallons **d.** 8 gallons

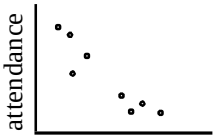
15._____

16. On the graph of the inequality $2x - y > 3$, which of the following points is contained within the shaded region?

a. (3, 3) **b.** (-3, -3) **c.** (-3, 3) **d.** (3, -3)

16._____

17. Lois is creating a presentation comparing swimming pool attendance to a variety of other factors using scatter plots. Which of the following variables was likely used on the x-axis to create the scatter plot below?



a. temperature **b.** precipitation **c.** time **d.** heat index

17._____

18. Triangle ABC is dilated with a scale factor of 2/5 to create triangle A'B'C'. What were the original coordinates of point A if A' is at (20, -30).

a. (50, -75) **b.** (4, -6) **c.** (8, -12) **d.** (40, -60)

18._____

19. The long side of a rectangle is 3 inches greater than twice the length of the short side. Find the rectangle's area if its perimeter is 48 inches.

a. $90in^2$ **b.** $119in^2$ **c.** $152in^2$ **d.** $495in^2$

19._____

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20. Solve for x: $14-3x>22+x$

a. $x<-2$ **b.** $x<2$ **c.** $x>-2$ **d.** $x>2$

_____

21. Rectangle ABCD has coordinates (-4, 8), (2, 8), (2, 4) and (-4, 4) and is dilated to form rectangle A'B'C'D' with coordinates (-6, 12), (3, 12), (3, 6) and (-6, 6). What was the scale factor of the dilation?

a. $\frac{2}{3}$ **b.** $\frac{3}{2}$ **c.** $\frac{4}{3}$ **d.** $\frac{3}{4}$

_____

22. What is the slope of the line of best fit for the data in the table below to the tenth?

x	5	10	15	25	45
y	29	55	81	133	237

a. 2.9 **b.** 3.0 **c.** 3.1 **d.** 3.2

_____

23. The shadow of a building is 950 feet long. At the same time, you measure the length of your friend Mark's shadow, which is 19 feet long. If Mark is 6 feet tall, what is the approximate height of the building?

a. 200 feet **b.** 300 feet **c.** 600 feet **d.** 3000 feet

_____

24. Which is the closest approximate of the side length of a square whose area is $50cm^2$?

a. 5cm **b.** 25cm **c.** 12.5 cm **d.** 25cm

_____

25. Solve for x in the following equation when y = -9: $\frac{2y-x}{3}=5$

a. x = 3 **b.** x = 33 **c.** x = -3 **d.** x = -33

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