Name_____ Period _____

26 Questions EOC Review #1

EOC REVIEW

Solve each: Give the BEST Answer. You may use a graphing calculator.

1. Which quadrant contains the vertex of the following: $f(x) = -2x^2 - 8x + 11$

a. 1st **b.** 2nd **c.** 3rd **d.** 4th

_____

2. What type of equation is described by the data below?

x	-2	0	2	4	6
f(x)	-1	-5	-1	11	31

a. Linear **b.** Quadratic **c.** Exponential **d.** None of these.

_____

3. The equation $y - 3 = -5(x + 11)$ passes through which of the following points?

a. (-3, 11) **b.** (3,-11) **c.** (-11, -3) **d.** (-11, 3)

_____

4. Solve the following equation for x: $ax - y = bx$

a. $x = \frac{a+b}{y}$ **b.** $x = \frac{a-b}{y}$ **c.** $x = \frac{y}{a+b}$ **d.** $x = \frac{y}{a-b}$

_____

5. What is the 100th term in the following sequence: 25, 36, 49, 64…

a. 10,404 **b.** 10,609 **c.** 10,816 **d.** 11,025

_____

6. To download music from the web, an internet site offers a monthly membership and charges $0.59 a song. If the monthly membership is $15, which equation represents the cost *(c)* of buying x songs in one year with the club?

a. c=0.59x+15 **b.** c=15x+0.59 **c.** c=0.59x+180 **d.** c=0.59x-180

_____

7. Which parabola below would have the narrowest graph?

a. $y = 7x^2 - 45x$ **b.** $y = 0.7x^2 + 45x$ **c.** $y = 45x^2 - 7x$ **d.** $y = \frac{1}{7}x^2 + 7x$

_____

Name_____ Period _____

26 Questions EOC Review #1

EOC REVIEW

8. Multiply: $(3a-5b)(2a+b)$

a. $5a^2-13ab-4b^2$ **b.** $5a^2-7ab-5b^2$ **c.** $6a^2-7ab+5b^2$ **d.** $6a^2-7ab-5b^2$

_____

9. What is equation for a horizontal line which passes through (-2, -3)?

a. x=-2 **b.** x+3=0 **c.** y=-2 **d.** y+3=0

_____

10. Which equation below has a graph with a slope of -½?

a. x-2y=12 **b.** -2x+y=12 **c.** -y-2x=12 **d.** x+2y=12

_____

11. How many solutions are there to the equation: $-3x^2+27=0$

a. 0 **b.** 1 **c.** 2 **d.** Infinite

_____

12. What is the equation for a line passing through (-2, 5) perpendicular to $y-3x=8$?

a. $y-5=\frac{1}{3}(x-2)$ **b.** $y-2=3(x+5)$ **c.** $y-5=-\frac{1}{3}(x+2)$ **d.** $y-5=-3(x+2)$

_____

13. If the equation $2x-y\le -7$ were graphed, which of the four quadrants would be shaded completely?

a. 1st **b.** 3rd **c.** 4th **d.** None.

_____

14. What is the range for the function $f(x)=x^2+4x$? **hint: find the vertex.**

a. $\{y\le -4\}$ **b.** $\{y\ge -4\}$ **c.** $\{y\ge 4\}$ **d.** {all real numbers}

_____

Name_____ Period _____

26 Questions EOC Review #1

EOC REVIEW

15. Factor Completely: $2x^3 - 2x^2 - 4x$

a. $2x(x^2 - x - 2)$ **b.** $x(2x + 2)(x - 2)$ **c.** $2(x + 1)(x^2 - 2x)$ **d.** $2x(x + 1)(x - 2)$

_____

16. Which formula could be used to find the nth term of the sequence below?

160, 80, 40, 20, 10, ...

a. $a_n = \frac{160}{n}$ **b.** $a_n = \frac{320}{2n}$ **c.** $a_n = \frac{160}{2^n}$ **d.** $a_n = \frac{160}{2^{n-1}}$

_____

17. Write an equation based on the table below showing the amount earned ***a*** mowing lawns based on the number of hours worked ***h***, including an initial fee.

hours worked ***h***	1	5	7	9	11
earned amt. ***a***	$14.75	$53.75	$73.25	$92.75	$112.25

a. $a = 9.50h + 5.25$ **b.** $a = 9.75h + 5$ **c.** $a = 9.25h + 5.5$ **d.** $a = 9h + 5.75$

_____

18. In problem number 17 above, how much could you earn mowing lawns for 6 hours and 15 minutes?

a. $64.96 **b.** $65.45 **c.** $65.94 **d.** $66.24

_____

19. Which equation below does NOT represent a function?

a. y=x **b.** $x=y^2$ **c.** y=1 **d.** $y=x^2$

_____

20. The height of a flare fired from a gun can be described by: $h = -16t^2 + 60t$ where t is the time in seconds and h is the height in feet. How long will it take for the flare to reach 36 feet?

a. .75 seconds **b.** 1 second **c.** 1.5 seconds **d.** 3 seconds

_____

21. Solve for x: $3x^2 - x - 2 = 0$

a. $\{x = -\frac{2}{3}, x = 1\}$ **b.** $\{x = \frac{2}{3}, x = 1\}$ **c.** $\{x = \frac{2}{3}, x = -1\}$ **d.** no solutions

_____

Name_____ Period _____

26 Questions EOC Review #1

EOC REVIEW

22. A photograph is two inches taller than it is wide. The frame around the photo is three inches wide. Which expression below represents the area of the *frame* based on the width of the photo?

a. 12w **b.** 6w+24 **c.** 12w+48 **d.** w^2+12w

_____

23. Which equation below is parallel to $2x-3y=9$ and shifted up 5 units?

a. $y=\frac{2}{3}x+2$

b. $y=-\frac{2}{3}x+14$

c. $y=\frac{2}{3}x+14$

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

_____

24. A basketball is dropped from a height of 120 feet. Each time it lands it bounces ¾ of the height it reached the last time. How high does the ball reach after the 5th bounce?

a. 50.6 ft **b.** 38.0 ft **c.** 28.5 ft **d.** 21.4ft

_____

25. If y varies directly as x, and when y=6, x=15, solve for y when x=20.

a. 50 **b.** 8 **c.** 7.5 **d.** 4.5

_____

26. Solve the following system of equations: $3x+2y=7$, $2x+3y=-2$

a. (-1, 5) **b.** (5, -1) **c.** (-4, 19) **d.** (5, -4)

_____

Name_____ Period _____

26 Questions EOC Review #2

EOC REVIEW

Solve each: Give the BEST Answer. You may use a graphing calculator.

1. Divide the following: $\frac{3.9 \cdot 10^5}{1.5 \cdot 10^3}$

a. $2.6 \cdot 10^8$ **b.** $2.6 \cdot 10^{-2}$ **c.** $2.6 \cdot 10^2$ **d.** 26

_____

2. The height of a baseball struck at 45 meters per second can be described by $h = -9.1t^2 + 45t$. How high will the ball be after 2 seconds?

a. 71.8 meters **b.** 53.6 meters **c.** 35.9 meters **d.** 126.4 meters

_____

3. Write an equation based on the table below showing the cost *c* of a cab ride based on the number of miles driven *m*.

cost *c*	4.30	5.55	8.05	14.30	15.55
Miles *m*	1	2	4	9	10

a. $c = 1.25m$ **b.** $c = 3m + 1.30$ **c.** $c = 3.05 + 1.25m$ **d.** $c = 3.05m + 1.25$

_____

4. In problem number 3 above, which value represents the dependent variable?

a. Miles driven **b.** Cost of cab ride **c.** y-intercept **d.** **$**1.25

_____

5. A car drives up a mountain for 14 miles, and gains 3,700 feet in altitude. What is the approximate slope of the road? (1 mile=5,280 feet)

a. $\frac{1}{20}$ **b.** $\frac{1}{10}$ **c.** $\frac{1}{200}$ **d.** 10

_____

6. A particular species of shark weighs 12 pounds at birth, and gains 3 pounds per week until it is 3 years old. Which of the following equations could be used to find the weight y of a young shark who is x weeks old?

a. y=12x+3 **b.** y=3x **c.** y=3x+12 **d.** y=3x-12

_____

Name_____ Period _____

26 Questions EOC Review #2

EOC REVIEW

7. Where does the graph of $y = 2^x - 5$ cross the y-axis?

a. -5 **b.** 0 **c.** -3 **d.** -4

_____

8. A bakery can make 30 batches of chocolate chip cookies in 480 minutes, and 40 batches in 600 minutes. After the initial time required for preparation, how long does it take to bake each batch of cookies?

a. 16 minutes **b.** 15 minutes **c.** 12 minutes **d.** 10 minutes

_____

9. What is equation for a line with a slope of zero which passes through (-3, 2)?

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

_____

10. Which equation below has a graph with an undefined slope?

a. x=2y **b.** y=0 **c.** x-5=0 **d.** y-x=0

_____

11. A player scored 37 points, making 16 shots from the field.
How many of these shots were three-pointers?

a. 11 **b.** 0 **c.** 5 **d.** 8

_____

12. Mark earns $20,000 per year, and an additional amount equal to 1%of his total sales. Which equation below could be used to graph Mark's salary *(y)* based on his sales *(x)* ?

a. $.01y = x + 20{,}000$ **b.** $y = x + 20{,}000$ **c.** $y = .01x + 20{,}000$ **d.** $y = 20{,}000x$

_____

13. Which equation below represents a line which passes through the points (-3, 3) and (3, 5)?

a. $y = -\frac{1}{3}x + 6$ **b.** $y = \frac{1}{3}x + 4$ **c.** $y = \frac{1}{3}x - 4$ **d.** $y = -\frac{1}{3}x - 6$

_____

14. What is the range for the function $f(x) = -2x^2 + 5$ for the domain $D = \{x > 5\}$

a. $R = \{y > -55\}$ **b.** $R = \{y > -45\}$ **c.** $R = \{y < 55\}$ **d.** $R = \{y < -45\}$

_____

Name_____ Period _____

26 Questions EOC Review #2

EOC REVIEW

15. Which of the following is a factor of: $6x^2+11x-7$

a. $2x-1$ **b.** $2x+1$ **c.** $3x-7$ **d.** $6x-1$

_____

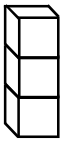
16. Which formula could be used to find the nth term of the sequence below?

7, 14, 28, 56, 112, ...

a. $a_n = 7n$ **b.** $a_n = 7n^2$ **c.** $a_n = 7^n$ **d.** $a_n = 7(2^{n-1})$

_____

17. A unit cube has edges that are 1 unit long, so that the surface area of a unit cube is $6u^2$. Which formula below could be used to find the surface area *A* of a stack of unit cubes that is n cubes tall?

1  2  3  ...n

(all answers in units^2)

a. $A = 6n^2$ **b.** $A = 4n + 2$ **c.** $A = 4n^2 + 2n$ **d.** $A = 4(n+2)$

_____

18. For $a=\begin{bmatrix} -3 & 7 \\ -2 & 8 \end{bmatrix}$ and $b=\begin{bmatrix} 4 & 0 \\ 5 & -1 \end{bmatrix}$ find $2a-b$.

a. $\begin{bmatrix} -10 & 14 \\ -1 & 15 \end{bmatrix}$ **b.** $\begin{bmatrix} -10 & 14 \\ -9 & 17 \end{bmatrix}$ **c.** $\begin{bmatrix} -2 & 14 \\ -9 & 17 \end{bmatrix}$ **d.** $\begin{bmatrix} -2 & 14 \\ -1 & 15 \end{bmatrix}$

_____

19. Which equation below does NOT represent a function?

a. $y = 2x$ **b.** $y = 2$ **c.** $x = 2y$ **d.** $x = 2$

_____

20. The height of a flare fired from a gun can be described by: $h=-16t^2+60t$ where t is the time in seconds and h is the height in feet. How long will it take for the flare to reach its peak height?

a. $1\frac{1}{2}$ seconds **b.** $1\frac{5}{8}$ second **c.** $1\frac{7}{8}$ seconds **d.** $3\frac{3}{4}$ seconds

_____

Name_____ Period _____

26 Questions EOC Review #2

EOC REVIEW

21. Solve for x: $3x^2 - x - 2 = 0$

a. $\{x = -\frac{2}{3}, x = 1\}$ **b.** $\{x = \frac{2}{3}, x = 1\}$ **c.** $\{x = \frac{2}{3}, x = -1\}$ **d.** no solutions

_____

22. A dining room is five feet longer than it is wide. You purchased a rug that fits in the room, leaving 2 feet of bare floor around all four sides of the rug. Which expression below represents the area of the rug based on the width of the room?

a. w(w-4) **b.** (w-4)(w+1) **c.** (w+4)(w-1) **d.** (w+5)(w+1)

_____

23. Which equation below is parallel to $2x - 3y = 10$ but is shifted three units *to the right* ?

a. $2x - 3y = 16$

b. $2x - 3y = 20$

c. $-2x + 3y = 16$

d. $2x + 3y = -20$

_____

24. What is the distance between the following points on the coordinate plane? (-2, 5) (6, -1)

a. $\sqrt{5}$ units **b.** $4\sqrt{2}$ units **c.** $4\sqrt{5}$ units **d.** 10 units

_____

25. Find the midpoint of segment AB for A = (9,2) and B = (-1, -7)

a. (4, -4.5) **b.** (4, -2.5) **c.** (5, -4.5) **d.** (5, -2.5)

_____

26. The center of a circle drawn on the coordinate plane is at (4, -9).
If one end of a diameter AB is at A(-3, 7), what are the coordinates of B?

a. (11, 23) **b.** (-10, -25) **c.** (11,-25) **d.** (-10, 23)

_____

Name_____ Period _____

26 Questions EOC Review #3

EOC REVIEW

1. Simplify: $\frac{x^2y^3}{x^4y^{-1}}$

a. x^2y^4 **b.** $\frac{1}{x^2y^2}$ **c.** $\frac{y^4}{x^2}$ **d.** $\frac{y^2}{x^2}$

_____

2. The height of a rocket launched at 30 meters per second can be described by $h = -9.1t^2 + 30t$. How high will the rocket be after 1.5 seconds?

a. 31.4 meters **b.** 53.6 meters **c.** 231.3 meters **d.** 24.5 meters

_____

3. Write an equation based on the table below showing the cost *c* of a stereo rental based on the days d it is rented:

cost *c*	$22	$34	$58	$118	$130
days *d*	1	2	4	9	10

a. $c = 22d$ **b.** $c = 10d + 12$ **c.** $c = 12d + 10$ **d.** $c = 4d + 18$

_____

4. In problem number 3 above, which value represents the dependent variable?

a. Days Rented **b.** Slope **c.** Cost of Rental **d.** Cost Per Day

_____

5. A ski slope drops 1,400 feet. From start to finish, the skier travels about 2 miles horizontally. **Approximately** what is the average slope of the mountain?
(1 mile=5,280 feet)

a. $-\frac{2}{15}$ **b.** $\frac{1}{7}$ **c.** $-\frac{1}{75}$ **d.** $\frac{1}{50}$

_____

6. A youth group sells cookies for $8 a box. If they spent $1000 buying the cookies, which equation below shows the profit (p) made by the group after selling (b) boxes?

a. p=8b-1000 **b.** p=8b+1000 **c.** p=1000b+8 **d.** p=8b

_____

Name_____ Period _____

26 Questions EOC Review #3

EOC REVIEW

7. Where does the graph of $y = 5^x - 25$ cross the x-axis?

a. $x = 0$ **b.** $x = 1$ **c.** $x = 2$ **d.** $x = 3$

_____

8. Multiply: $(x + 2y)^2$

a. $x^2 + 2y^2$ **b.** $x^2 + 4y^2$ **c.** $x^2 + 4xy + y^2$ **d.** $x^2 + 4xy + 4y^2$

_____

9. For $a = \begin{bmatrix} -4 & 7 \\ -9 & 5 \end{bmatrix}$ and $b = \begin{bmatrix} 5 & 1 \\ -3 & -2 \end{bmatrix}$ find $a - 3b$.

a. $\begin{bmatrix} -19 & 4 \\ 0 & 11 \end{bmatrix}$ **b.** $\begin{bmatrix} 11 & 4 \\ 0 & -1 \end{bmatrix}$ **c.** $\begin{bmatrix} -19 & 10 \\ -18 & 11 \end{bmatrix}$ **d.** $\begin{bmatrix} 11 & 10 \\ -18 & -1 \end{bmatrix}$

_____

10. Which equation below has a graph with a slope of ¾?

a. 3x - 4y=12 **b.** 3y - 4x =12 **c.** 3y = 4x + 12 **d.** both a and c

_____

11. A store has a total of 20 three-wheelers and four wheelers (off-road vehicles). If they have a total of 65 wheels on all the vehicles, how many three-wheelers do they have?

a. 5 **b.** 10 **c.** 15 **d.** 20

_____

12. What is the equation for a line passing through (-3, -1) and (3, 3) ?

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

_____

13. Which of the following is a solution to the system of inequalities below:

$y \le -3x + 7$ and $3y - 2x \ge 12$

a. (10, -10) **b.** (-10, -10) **c.** (10, 10) **d.** (-10, 10)

_____

Name_____ Period _____

26 Questions EOC Review #3

EOC REVIEW

14. What is the 29th term in the following sequence: 15, 11, 7, 3, ...

a. -89 **b.** -93 **c.** -97 **d.** -101

_____

15. Solve for x: $x^2 - 15x = -50$

a. $\{x = 10\}$ **b.** $\{x = 5\}$ **c.** $\{x = 10, x = -5\}$ **d.** $\{x = 10, x = 5\}$

_____

16. The number of bacteria present in an experiment can be approximated by $n = 5.6t^2 + 1000t$, where t is the time in minutes. How many bacteria will there be in one-half hour?

a. 501.4 **b.** 35,040 **c.** 30,168 **d.** 58,224

_____

17. Write an equation based on the table below showing the amount earned ***a*** babysitting based on the number of hours worked ***h,*** including an initial fee.

hours worked ***h***	3	5	7	9	11
earned amt. ***a***	$21	$31	$41	$51	$61

a. $a = 5.5h + 4.5$ **b.** $a = 6h + 3$ **c.** $a = 6h + 5$ **d.** $a = 5h + 6$

_____

18. In problem number 17 above, what does the y-intercept represent?

a. Hours worked **b.** Total Earnings **c.** Initial fee **d.** Hourly wages

_____

19. The steepest section of the Tour De France climbs 300 meters over the course of 11 kilometers. What is the average slope of the course in this section? (1km = 1000m)

a. $\frac{3}{11}$ **b.** $\frac{1}{110}$ **c.** $\frac{3}{110}$ **d.** $\frac{300}{11}$

_____

20. What are the coordinates of the vertex of the following: $y = -3x^2 - 18x$

a. (-3, 27) **b.** (3, 18) **c.** (3, -27) **d.** (-3, -18)

_____

Name_____ Period _____

26 Questions EOC Review #3

EOC REVIEW

21. Solve for x: $2x^2 - 9x = -10$

a. $\{x = 2\}$ **b.** $\{x = 0.4\}$ **c.** $\{x = 2, x = 2.5\}$ **d.** $\{x = 2, x = 0.4\}$

_____

22. What is the range for the function $f(x) = x^2 - 9$ for the domain $\{x \le 2\}$. **(hint: pick several values)**

a. $\{y \ge -9\}$ **b.** $\{y \ge -5\}$ **c.** $\{y \le -5\}$ **d.** $\{-5 \ge y \ge -9\}$

_____

23. What would happen to the equation $y = 2x - 9$ if it were changed to $y = -\frac{1}{2}x - 7$?

a. The line would shift up two units and the slope would be parallel to the original.

b. The line would shift down two units and the slope would be parallel to the original.

c. The line would shift up two units and the slope would be perpendicular to the original.

d. The line would shift down two units and the slope would be perpendicular to the original.

_____

24. About how many years will it take $400 invested at 6% annual compound interest to double in value?

$A = p(1+r)^t$

a. 10 years **b.** 12 years **c.** 15 years **d.** 20 years

_____

25. Solve the following system of equations: $y = -2x$ $3y = -2x + 12$

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

_____

26. Which formula below could be used to determine the nth term in the following sequence:

1, 3, 6, 10, 15, ...

a. $a_n = n(n-1) + 1$ **b.** $a_n = \frac{n(n-1)}{2}$ **c.** $a_n = \frac{n(n+1)}{2}$ **d.** $a_n = 2n(n+1)$

_____

Name_____ Period _____

26 Questions EOC Review #4

EOC REVIEW

1. Simplify: $2a^7b^2(a^{-2}b^4)$

a. $2a^9b^6$ **b.** $2a^{-14}b^8$ **c.** $2a^5b^6$ **d.** a^5b^6

_____

2. What is the slope of a line passing through the points (5,-2) and (2,-5)?

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

_____

3. If the equation $6x+3y=-18$ is shifted up 5 units, what is the new y-intercept of the graph?

a. 1 **b.** -13 **c.** -1 **d.** -23

_____

4. Solve the following inequality: $3x-9\le 5x+3$

a. $x\ge 6$ **b.** $x\ge -6$ **c.** $x\le 6$ **d.** $x\le -6$

_____

5. What is the 100th term in the following sequence: -11, -2, 7, 16, 25, ...

a. 10,000 **b.** 880 **c.** 889 **d.** 920

_____

6. A band class is selling tickets to their concert. If they spent $300 preparing the production, and tickets are sold for $6, which equation below shows the profit (p) made by the group after selling (t) tickets?

a. p=6t+300 **b.** p=6t-300 **c.** p=600t+300 **d.** p=600t-300

_____

7. Which equation graphed below would result in an upside-down parabola?

a. $y=x^2-45x$ **b.** $y=5^x$ **c.** $y=-2x$ **d.** $y=-(x+2)^2$

_____

8. Multiply: $(x-y)(x+y)^2$

a. x^3-y^3 **b.** $x^3-x^2y+xy^2-y^3$ **c.** $x^3+x^2y-xy^2+y^3$ **d.** $x^3+x^2y-xy^2-y^3$

_____

Name_____ Period _____

26 Questions EOC Review #4

EOC REVIEW

9. What is equation for a vertical line which passes through (-2, -3)?

a. x=-2 **b.** x+3=0 **c.** y=-2 **d.** y+5=0

_____

10. Which equation below has a graph with a slope of ½?

a. x-2y=12 **b.** y-2x=12 **c.** y=2x+12 **d.** y+2x=12

_____

11. Which equation below represents the data given in the table?

x	3	5	7	9	11	13
f(x)	18	12	6	0	-6	-12

a. $f(x)=2x^2$ **b.** $f(x)=-3x-27$ **c.** $f(x)=-3x+27$ **d.** $f(x)=-\frac{1}{3}x+9$

_____

12. What is the equation for a line passing through (3, 4) parallel to $3y-2x=12$?

a. $y-3=\frac{2}{3}(x-4)$ **b.** $y-4=\frac{2}{3}(x-3)$ **c.** $y+4=\frac{2}{3}(x+3)$ **d.** $y-4=-\frac{2}{3}(x-3)$

_____

13. If the equation $y\le 3x+2$ were graphed, which of the four quadrants would be shaded completely?

a. 1st **b.** 2nd **c.** 3rd **d.** 4th

_____

14. What is the range for the function $f(x)=x^2+2$?

a. $\{y\le 2\}$ **b.** $\{y\ge 2\}$ **c.** $\{y\ge -2\}$ **d.** {all real numbers}

_____

Name_____ Period _____

26 Questions EOC Review #4

EOC REVIEW

15. Which equation below could be used to find the roots of: $y = x^2 - 10x - 11$

a. $0 = (x-11)(x+1)$ **b.** $0 = x(x-10)$ **c.** $0 = (x-11)(x-1)$ **d.** $0 = (x+11)(x-1)$

_____

16. In the sequence below, the 25th term is 83,886,080. What is the 26th term?

5, -10, 20, -40, 80, ...

a. 125,829,120 **b.** -125,829,120 **c.** 167,772,160 **d.** -167,772,160

_____

17. Write an equation based on the table below showing the amount earned ***a*** babysitting based on the number of hours worked ***h,*** including an initial fee.

hours worked ***h***	3	5	7	9	11
earned amt. ***a***	$21	$33	$45	$57	$69

a. $a = 5.5h + 4.5$ **b.** $a = 6h + 3$ **c.** $a = 7h$ **d.** $a = 5h + 6$

_____

18. In problem number 17 above, what does the slope represent?

a. Hours worked **b.** Total Earnings **c.** Initial fee **d.** Hourly wages

_____

19. Which set of points below does NOT represent a function?

a. (-2, 3) (-3, 4) (-4, 5) (-5, 6)

b. (-2, -2) (-3, -3) (-4, -4) (-5, -5)

c. (-2, 2) (-3, 3) (-2, 4) (-3, 5)

d. (-2, -3) (-3, -2) (-5, -4) (-4, -5)

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20. The height of a flare fired from a gun can be described by: $h = -16t^2 + 240t$ where t is the time in seconds and h is the height in feet. How long will it take for the flare to reach 900 feet?

a. 4 seconds **b.** 5 seconds **c.** 6 seconds **d.** 7 seconds

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Name_____ Period _____

26 Questions EOC Review #4

EOC REVIEW

21. Solve for x: $3x^2 - x + 2 = 0$

a. $\{x = -.7, x = 1\}$ **b.** $\{x = 1.5, x = 1\}$ **c.** $\{x = .7, x = -1\}$ **d.** no solutions

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22. A rectangle is three inches longer than twice its width. Its perimeter is 36 inches. How long is the rectangle?

a. 5 inches **b.** 8 inches **c.** 13 inches **d.** 15 inches

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23. What would be the new equation for $2x - y = 9$ if it were shifted up 5 units?

a. $y = 2x + 4$

b. $y = 2x - 4$

c. $y = \frac{1}{2}x - 13$

d. $y = 2x - 13$

_____

24. About how many years will it take $9,000 invested at 14% annual compound interest to double in value?

$A = p(1 + r)^t$

a. 2.5 years **b.** 5.3 years **c.** 7.1 years **d.** 9.0 years

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25. Solve the following system of equations:

$$2x + y = 9$$
$$2x + 3y = 3$$

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

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26. For $a = \begin{bmatrix} 4 & 1 \\ -3 & 2 \end{bmatrix}$ and $b = \begin{bmatrix} 6 & -8 \\ 5 & -7 \end{bmatrix}$ find $b - a$.

a. $\begin{bmatrix} 2 & -9 \\ 8 & 9 \end{bmatrix}$ **b.** $\begin{bmatrix} -2 & 9 \\ -8 & 9 \end{bmatrix}$ **c.** $\begin{bmatrix} -2 & 9 \\ 8 & -9 \end{bmatrix}$ **d.** $\begin{bmatrix} 2 & -9 \\ 8 & -9 \end{bmatrix}$

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