Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Term 1 Practice Questions

1) What is the slope of a line that passes through the points $(3, 5)$ and $(6, 15)$?

2) What is the equation of a line that passes through the points $(2, 6)$ and $(6, 12)$?

3) What is the equation of a line that with a slope of $3$ and an initial value of $-4$?

4) What is the equation of a line with a slope of $\frac{1}{4}$ and that passes through the point $(4, -3)$?

5) Solve the following equations for x.

|  |  |
| --- | --- |
| a) $3x-2=10$ | b) $2\left(x-4\right)=3(x+12)$ |

6) William collects stuffed dinosaurs and stuffed bears. William has twice as many dinosaurs as bears.

William has a total of 105 stuffed animals.

Translate this scenario into equations.

7) A group of students sold cookies and cupcakes to raise money for school activities.

The profit for each cookie is $0.50. The profit for each cupcake is $1.50.

The students sold 4 times as many cookies as cupcakes.

By selling the cookies and cupcakes, they made a profit of $7 700.

Let x be the number of cookies sold

Let y be the number of cupcakes sold.

Which of the following systems of equations represents this situation?

|  |  |
| --- | --- |
| A) $x=4y$$$0.5x+1.5y=7 700$$ | C) $4x=y$$$0.5x+1.5y=7 700$$ |
| B) $x=4y$$$1.5x+0.5y=7 700$$ | D) 4$x=y$$$1.5x+0.5y=7 700$$ |

8) An art supply store sells bottles and tubes of paint.

* The cost of each bottle of paint is the same
* The cost of each tube of paint is the same
* Three times the cost of a bottle of paint is $17 more than the cost of a tube of paint
* The total cost of 11 bottles and 4 tubes is $110.25

Zoe bought 3 bottles and 7 tubes of paint. What was the total cost of Zoe’s purchase?

9) Where do the following lines intersect?

$$y=2x+4$$

$$y=-5x+11$$

10) Three groups of friends went to the movie theater. The theater sells small and large popcorn. The table below provides information on the sales.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Number of small popcorns purchased | Number of large popcorns purchased | Total cost |
| Group 1 | 3 | 5 | $84.00 |
| Group 2 | 6 | 2 | $72.00 |
| Group 3 | 4 | 3 | ? |

How much did Group 3 pay for their popcorn?

11) Given $y=3x+4$, solve for y when $x=5$

12) Given $3x+4y=5$, solve for x when $y=5$