

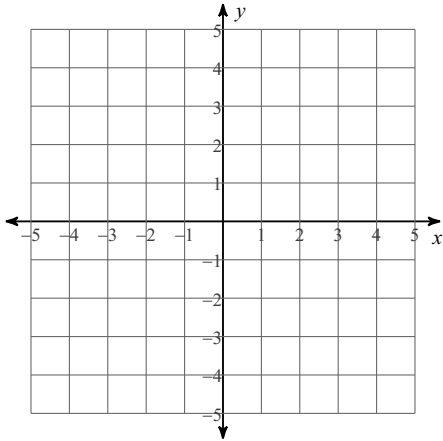
Systems of Equations Word Problems + Review Date _____ Period _____

- 1) Shreya and Mei are selling cheesecakes for a school fundraiser. Customers can buy French silk cheesecakes and chocolate marble cheesecakes. Shreya sold 4 French silk cheesecakes and 6 chocolate marble cheesecakes for a total of \$88. Mei sold 4 French silk cheesecakes and 5 chocolate marble cheesecakes for a total of \$78. What is the cost each of one French silk cheesecake and one chocolate marble cheesecake?
- A) French silk cheesecake: \$7, chocolate marble cheesecake: \$10
B) French silk cheesecake: \$8, chocolate marble cheesecake: \$9
C) French silk cheesecake: \$9, chocolate marble cheesecake: \$13
D) French silk cheesecake: \$8, chocolate marble cheesecake: \$16
- 2) Flying to Shanghai with a tailwind a plane averaged 358 km/h. On the return trip the plane only averaged 332 km/h while flying back into the same wind. Find the speed of the wind and the speed of the plane in still air.
- A) Plane: 375 km/h, Wind: 16 km/h B) Plane: 352 km/h, Wind: 7 km/h
C) Plane: 345 km/h, Wind: 13 km/h D) Plane: 542 km/h, Wind: 12 km/h
- 3) Perry and Jose are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Perry sold 5 rolls of plain wrapping paper and 1 roll of shiny wrapping paper for a total of \$59. Jose sold 1 roll of plain wrapping paper and 1 roll of shiny wrapping paper for a total of \$27. What is the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper?
- A) roll of plain wrapping paper: \$12, roll of shiny wrapping paper: \$13
B) roll of plain wrapping paper: \$8, roll of shiny wrapping paper: \$19
C) roll of plain wrapping paper: \$7, roll of shiny wrapping paper: \$12
D) roll of plain wrapping paper: \$19, roll of shiny wrapping paper: \$8
- 4) Sarawong and Shreya each improved their yards by planting grass sod and ornamental grass. They bought their supplies from the same store. Sarawong spent \$19 on 1 ft² of grass sod and 4 bunches of ornamental grass. Shreya spent \$44 on 4 ft² of grass sod and 8 bunches of ornamental grass. Find the cost of one ft² of grass sod and the cost of one bunch of ornamental grass.
- A) ft² of grass sod: \$4, bunch of ornamental grass: \$3
B) ft² of grass sod: \$2, bunch of ornamental grass: \$5
C) ft² of grass sod: \$1, bunch of ornamental grass: \$6
D) ft² of grass sod: \$3, bunch of ornamental grass: \$4

Solve each system by graphing.

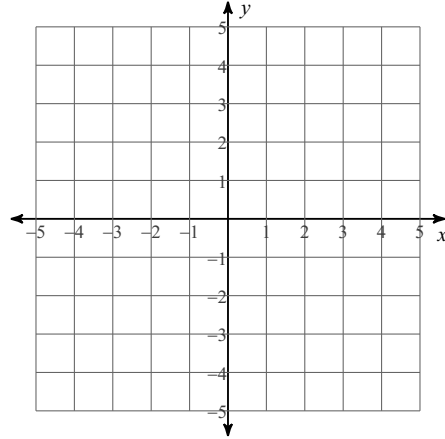
5) $y = \frac{5}{4}x - 3$

$y = -\frac{1}{4}x + 3$



- A) $(-4, -2)$ B) $(-2, -4)$
C) $(4, 2)$ D) $(2, 4)$

6) $2x + y = -3$
 $2x - y = -1$



- A) $(-1, -1)$ B) $(1, 4)$
C) $(1, -4)$ D) $(2, 4)$

Find the slope of each line.

7) $y = -\frac{7}{2}x - 4$

- A) $-\frac{7}{2}$ B) $-\frac{2}{7}$
C) $\frac{2}{7}$ D) $\frac{7}{2}$

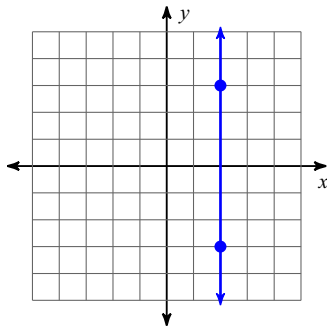
8) $3x - y = -3$

- A) $-\frac{1}{3}$ B) -3
C) 3 D) $\frac{1}{3}$

9) $2 + y - \frac{2}{5}x = 0$

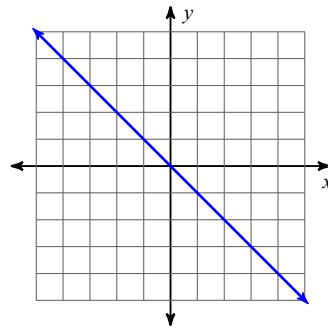
- A) $\frac{5}{2}$ B) $-\frac{2}{5}$
C) $\frac{2}{5}$ D) $-\frac{5}{2}$

10)



- A) 0 B) $-\frac{4}{5}$
 C) Undefined D) $\frac{4}{5}$

11)



- A) $-\frac{1}{4}$ B) -1
 C) $\frac{1}{4}$ D) 1

Find the slope of a line parallel to each given line.

12) $y = -2$

- A) $-\frac{1}{2}$ B) Undefined
 C) $\frac{1}{2}$ D) 0

Find the slope of each line.

13) $x - y = -3$

- A) 1 B) $-\frac{3}{5}$
 C) $\frac{3}{5}$ D) -1

14) $x - y = -4$

- A) 2 B) -2
 C) -1 D) 1

Find the slope of the line through each pair of points.

15) $(-15, 3), (-17, -11)$

- A) $-\frac{1}{7}$ B) $\frac{1}{7}$
 C) -7 D) 7

16) $(4, -11), (7, -12)$

- A) $-\frac{1}{3}$ B) $\frac{1}{3}$
 C) -3 D) 3

Evaluate each expression.

17) $33 - 5 + (-38)$

- A) 25 B) -10
C) 21 D) -39

18) $(-28) - (-34) + 36$

- A) 57 B) 51
C) 40 D) 42

Simplify each expression.

19) $-2(-6 - 8m) + 3$

- A) $15 + 16m$ B) $-16 + 15m$
C) $-18 - 12m$ D) $-10 - 12m$

20) $-3 + 5(1 - 7k)$

- A) $-35k - 2$ B) $-35k$
C) $2 - 35k$ D) $-35k - 6$

Solve each equation.

21) $-5 = \frac{m}{11}$

- A) $\{-55\}$ B) $\{6\}$
C) $\{-16\}$ D) $\left\{-\frac{5}{11}\right\}$

22) $-30 = 2x - 10$

- A) $\{-10\}$ B) $\{12\}$
C) $\{14\}$ D) $\{19\}$

23) $130 = 5(1 + 3x) + 5$

- A) $\{6\}$ B) $\{-6\}$
C) $\{8\}$ D) $\{-16\}$

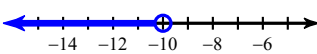
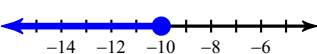
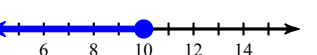
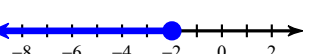
Solve each equation for the indicated variable.

24) $xk = w - v$, for x

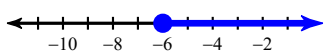
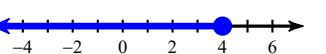
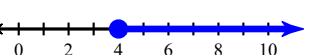
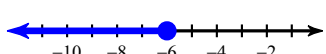
- A) $x = kw - kv$
B) $x = w - v + k$
C) $x = -kw + kv$
D) $x = \frac{w - v}{k}$

Solve each inequality and graph its solution.

25) $x + 6 \leq -4$

- A) $x \leq -10$: 
B) $x \leq -10$: 
C) $x \leq 10$: 
D) $x \leq -2$: 

26) $-2x \geq -8$

- A) $x \geq -6$: 
B) $x \leq 4$: 
C) $x \geq 4$: 
D) $x \leq -6$: 

Solve each system by elimination.

27) $-x + 9y = -26$
 $x + 2y = -18$

- A) (3, -4) B) (3, 6)
C) (-10, -4) D) (3, 4)

28) $8x - 4y = 16$
 $8x - 4y = 16$

- A) (4, -8)
B) Infinite number of solutions
C) (4, 8)
D) (-4, 8)

Solve each system by substitution.

29) $y = 2x + 6$
 $y = -2x + 2$

- A) (-4, 1) B) (-1, -4)
C) (-1, 4) D) (-4, -1)

Simplify each expression.

30) $(a + 4a^2) + (3 - 3a^2)$

- A) $-4a^2 + a + 3$
B) $a^2 + a + 3$
C) $-6a^2 + 4a + 3$
D) $-4a^2 + 4a + 3$

31) $(3x^3 + 4x^4) - (3x^3 + 5x^2)$

- A) $4x^4 - 2x^2$
B) $4x^4 - 5x^2$
C) $4x^4 - 2x^2 - 5x^3$
D) $-2x^2 - 5x^3$

Find each product.

32) $(v - 1)(v + 3)$

- A) $v^2 - 3$ B) $v^2 - 4v + 3$
C) $v^2 + 4v + 3$ D) $v^2 + 2v - 3$