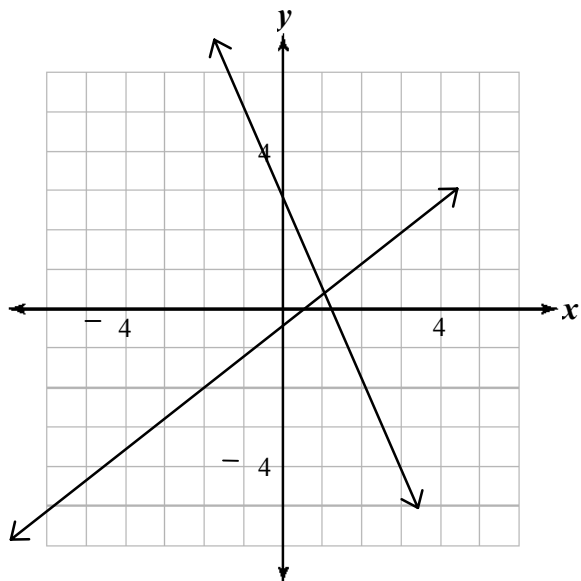


- 1 This graph represents which one of the following systems of linear equations?

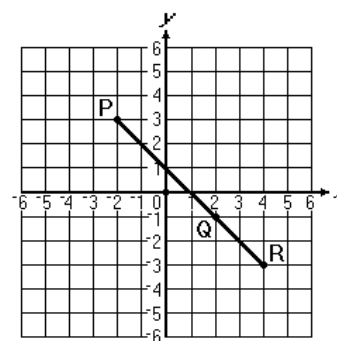


- A $2x - 6y - 3 = 0$
 $4x + 2y + 7 = 0$
- B $2x - 3y - 1.5 = 0$
 $4x + 2y - 7 = 0$
- C $3x - y - 0.5 = 0$
 $x + 2y - 7 = 0$
- D $2x + 6y + 3 = 0$
 $4x - 2y + 7 = 0$

- 2 Red Cloud can do a piece of work in 3 days, Black Elk in 5 days, and Little Wolf in 8 days. If all three work together, how long will it take them to do the work?

- A $5\frac{1}{3}$ days
- B $1\frac{41}{79}$ days
- C 5 days
- D $1\frac{1}{2}$ days

3



What are the coordinates of point Q?

- A $(-2, 1)$
- B $(-2, 3)$
- C $(2, 1)$
- D $(4, -3)$
- E None of the above

4

Find the solution set for the following system of equations:

$$y = 3x + 4$$

$$3x - y = -2$$

- A $(1, 7)$
- B $(-\frac{1}{3}, 3)$
- C $(\frac{1}{3}, 5)$
- D Infinite set
- E Empty set

5

If $\frac{x}{3} - 2 = 4$, then x is

- A 6
- B 10
- C 14
- D 18

6 A supermarket charges \$5.10 for a six-pound package of meat. The package contains ground beef and ground pork. If ground beef sells for 80 cents a pound and ground pork sells for 95 cents a pound, how many pounds of ground beef are in the package?

- A Beef: 2 lbs.; Pork: 4 lbs.
- B Beef: 3 lbs.; Pork: 3 lbs.
- C Beef: 5 lbs.; Pork: 1 lb.
- D Beef: 4 lbs.; Pork: 2 lbs.

7 The solution for the inequality $10 - y \geq 8 - (y - 2)$ is:

- A \emptyset
- B $\{y : y \geq 0\}$
- C $\{y : y \leq 0\}$
- D $\{\text{all reals}\}$
- E $\{y : y \geq 2\}$

8 Which of these is equal to $3 - (\sqrt{25}) + \frac{(+\sqrt{64})}{16}$?

- A $-2\frac{1}{2}$
- B $-1\frac{1}{2}$
- C $2\frac{1}{2}$
- D $8\frac{1}{2}$

9 If $|2y + 5| \leq 1$, the solution set for y is:

- A $2 \leq y \leq 3$
- B $-2 \leq y \leq 3$
- C $-3 \leq y \leq -2$
- D $y \leq -3$ or $y \geq -2$

10 Which of the following is **NOT** a point on the line $-6x + 5y = 13$

- A $(1, \frac{19}{5})$
- B $(-\frac{1}{2}, 2)$
- C $(-\frac{1}{3}, \frac{11}{5})$
- D $(6, -5)$

11 Mei ate 2^{-3} of an apple. What part of the apple did she eat?

- A $\frac{1}{8}$
- B $\frac{1}{6}$
- C $\frac{1}{5}$
- D $\frac{2}{3}$

12 Which of the following is an equation of the line with a slope of $-\frac{3}{2}$ passing through the point $(5, -6)$?

- A $2x + 3y = -8$
- B $3x + 2y = -12$
- C $3x + 2y = 3$
- D $3x + 2y = -3$

13 Simplify the following expression.

$$(5a - 3b) + (-2a + 7b) =$$

- A $3a - 4b$
- B $3a + 4b$
- C $7a + 4b$
- D $3a - 10b$

14 The equation of line k is $y = 2x + 3$. Which of the following is the equation of a line that is parallel to line k ?

A $y = 3x + 2$

B $y = -2x + 3$

C $y = 2x + 5$

D $y = \frac{-1}{2}x + 5$

15 The greater of two numbers is 3 more than the smaller. If twice the smaller is added to the greater, the result is 30. Find the numbers:

A 4, 7

B 9, 1

C 9, 1

D 5, 10

16 At what point does the line $y = 3x + 6$ cross the y -axis?

A $(0, -2)$

B $(0, 6)$

C $(-2, 0)$

D $(6, 0)$

17 Which of the following is **NOT** another name for $2x + 4x$?

A $(2)(3x)$

B $x + 5x$

C $6x - x$

D $12x^2 \div 2x$

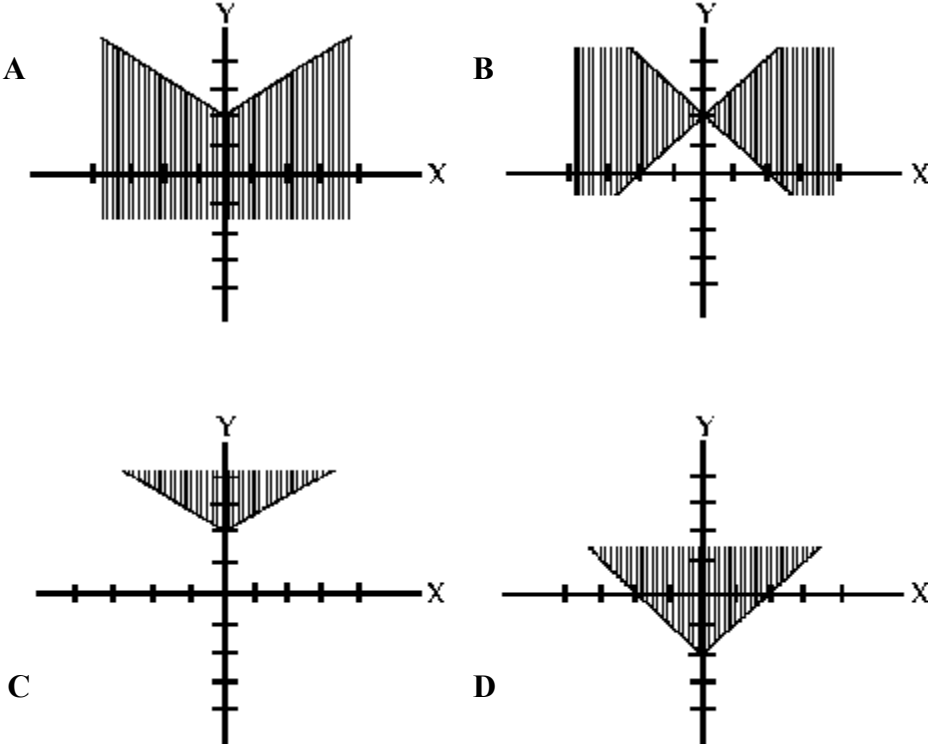
E $2x + 2x + 2x$

18 Starting at the same spot, Matt headed east on his bike at the same time that Gina headed west walking. Matt's rate of pedaling was five times Gina's walking rate. If they were 12 miles apart after $\frac{1}{2}$ hour, what was Gina's rate of walking?

Distance = Rate \times Time

- A 1 mile per hour
- B 4 miles per hour
- C 1.5 miles per hour
- D 4.8 miles per hour

19 The correct sketch for the relation $y \leq |x| + 2$ is which of the ones shown below?



20

Look at the equation below.

$$|x| - 9 = 7$$

Which of the following represents all possible values of x ?

- A {2}
- B {16}
- C $\{-2, 2\}$
- D $\{-16, 16\}$

21

Which of these points lie on the parabola expressed by the equation below?

$$y = \frac{1}{2}x^2$$

- A (0, 0), (1, 1)
- B (2, 2), $(-2, 2)$
- C $(-1, 0)$, (4, 8)
- D $(1, \frac{1}{2})$, (2, 4)

22

Which of the following is a simplified form of the expression below?

$$6 + 3(x - 5) + 4x - 2$$

- A $7x - 1$
- B $7x - 11$
- C $13x - 7$
- D $13x - 47$

23

Tom knows the lines $y = -x - 7$ and $y = -x + 7$ are parallel. Which statement below proves him correct?

- A The slopes are equal.
- B They are the same line.
- C There are no squared terms.
- D The y intercepts are the same.



For Number 24 , work the problem and choose the correct answer.

24

$$(0.2u^2 - 0.9v)(0.2u^2 + 0.9v) =$$

- A $0.04u^4 + 0.81v^2$
- B $0.04u^4 - 0.36u^2v - 0.81v^2$
- C $0.04u^4 - 0.81v^2$
- D $0.04u^4 + 0.36u^2v + 0.81v^2$

?	●	Answer/ Scale	Objective	?	●	Answer/ Scale	Objective
1	1	B	19.02 Graphical Soln Systems Eqns	13	13	B	14.01 Simplifying linear expressions
2	2	B	115.02 Work Problems	14	14	C	18.01 Slopes Parallel Lines
3	3	E	16.02 Cartesian Coordinate System	15	15	C	15.02 Word Problems
4	4	E	19.03 Add Sub (Linear Combination)	16	16	B	16.052 Find Intercepts or Slope
5	5	D	14.023 Multi-Step Equations	17	17	C	14.01 Simplifying linear expressions
6	6	D	15.02 Word Problems	18	18	B	115.01 Rate Problems
7	7	D	14.03 Solving Linear Inequalities	19	19	A	16.08 Graphing Inequalities
8	8	B	12.024 Definitions of Roots	20	20	D	13.0 Solv equat-inequali involv absolute val...
9	9	C	13.0 Solv equat-inequali involv absolute val...	21	21	B	17.0 Verfy point lies on line, givn equat of line
10	10	D	17.0 Verfy point lies on line, givn equat of line	22	22	B	110.01 Adding and Subtracting
11	11	A	12.023 Zero and Negative Exponents	23	23	A	18.01 Slopes Parallel Lines
12	12	C	16.042 Eqn Of Line Given Slope,Point	24	24	C	110.05 Binomial Times Binomial

Total questions on test: 24

Minimum points
required to achieve
mastery category

Objectives measured: 19	Items	Points	●	☾	Questions measuring this objective
19.02 Graphical Soln Systems Eqns	1	1	1	1	1
115.02 Work Problems	1	1	1	1	2
16.02 Cartesian Coordinate System	1	1	1	1	3
19.03 Add Sub (Linear Combination)	1	1	1	1	4
14.023 Multi-Step Equations	1	1	1	1	5
15.02 Word Problems	2	2	2	1	6 15
14.03 Solving Linear Inequalities	1	1	1	1	7
12.024 Definitions of Roots	1	1	1	1	8
13.0 Solv equat-inequali involv absolute values	2	2	2	1	9 20
17.0 Verfy point lies on line, givn equat of line	2	2	2	1	10 21
12.023 Zero and Negative Exponents	1	1	1	1	11
16.042 Eqn Of Line Given Slope,Point	1	1	1	1	12
14.01 Simplifying linear expressions	2	2	2	1	13 17
18.01 Slopes Parallel Lines	2	2	2	1	14 23

Minimum points
required to achieve
mastery category

Total questions on test: 24

Objectives measured: 19	Items	Points	●	☐	Questions measuring this objective
16.052 Find Intercepts or Slope	1	1	1	1	16
115.01 Rate Problems	1	1	1	1	18
16.08 Graphing Inequalities	1	1	1	1	19
110.01 Adding and Subtracting	1	1	1	1	22
110.05 Binomial Times Binomial	1	1	1	1	24
Totals		24	24	19	

Items used in test

?	Item name	?	Item name	?	Item name
1	28353	9	MTHS2020104.16	17	0014037
2	MTHS2020103.40	10	MTHS2020503.1	18	9M.4.4.1.01
3	0014034	11	0022077	19	MTHS2020504.7
4	MTHS2030301.5	12	28349	20	9M.1.6.3.01
5	0022076	13	28477	21	A1.2.1.4.01
6	MTHS2020103.11	14	28192	22	A1.1.1.5.02
7	MTHS2020201.5	15	MTHS2020103.28	23	A1.2.3.6.02
8	0022047	16	0021741	24	24662