

1. Solve the system using substitution:

$$3x - 4y = 22$$

$$y = -x - 2$$

[A] $\left(0, -\frac{11}{2}\right)$

[B] (3, -5)

[C] (2, -4)

[D] $\left(-4, -\frac{17}{2}\right)$

[1] _____

2. Solve the system using substitution:

$$x - 2y = -13$$

$$y = 3x + 14$$

[A] (-2, 8)

[B] (5, 9)

[C] $\left(0, \frac{13}{2}\right)$

[D] (-3, 5)

[2] _____

3. Solve the system using substitution:

$$3x - 2y = 13$$

$$y = -3x - 2$$

[A] (-5, -14)

[B] (1, -5)

[C] $\left(0, -\frac{13}{2}\right)$

[D] (2, -8)

[3] _____

Simplify:

4. $\frac{\frac{1}{r+s}}{\frac{1}{t}}$

[A] $rt + st$

[B] $\frac{r^2 + rs}{t}$

[C] $\frac{t}{r^2 + rs}$

[D] $\frac{t}{r + s}$

[4] _____

5. $\frac{\frac{d}{t}}{\frac{u}{t+d}}$

[A] $\frac{du + tu}{d^2}$

[B] $\frac{u}{d+t}$

[C] $\frac{d^2 + dt}{u}$

[D] $\frac{dt + d^2}{tu}$

[5] _____

6. $\frac{e+f}{\frac{1}{g}}$

[A] $\frac{g}{e+f}$

[B] $\frac{e^2 + ef}{g}$

[C] $eg + fg$

[D] $\frac{g}{e^2 + ef}$

[6] _____

7. Solve the system using substitution:

$$x + 4y = -13$$

$$y = x - 7$$

[A] $\left(0, -\frac{13}{4}\right)$

[B] $(4, -3)$

[C] $(3, -4)$

[D] $\left(-4, -\frac{9}{4}\right)$

[7] _____

Simplify:

8.
$$\frac{\frac{g}{w}}{\frac{x}{w+g}}$$

[8] _____

9.
$$\frac{\frac{a}{y}}{\frac{z}{y+a}}$$

[A] $\frac{z}{a+y}$

[B] $\frac{a^2 + ay}{z}$

[C] $\frac{ay + a^2}{yz}$

[D] $\frac{az + yz}{a^2}$

[9] _____

10. Given the sets $A = \{-2, 1, 4, 5\}$, $B = \{1, 5\}$, and $C = \{-2, -1, 1, 2\}$, tell which of the following statements are true and which are false.

a) $1 \notin B$ b) $1 \in A$ c) $5 \notin C$ d) $2 \notin B$

[A] a) true b) false c) false d) false

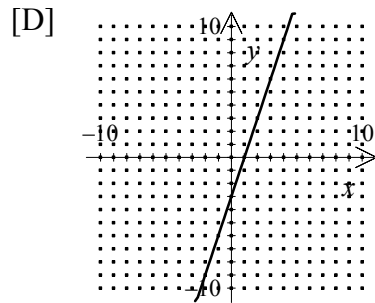
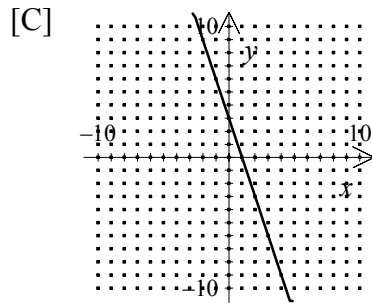
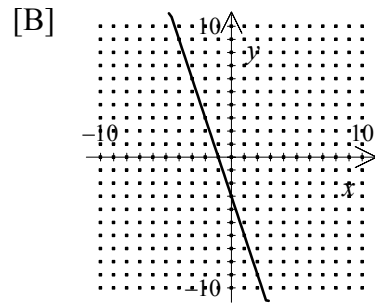
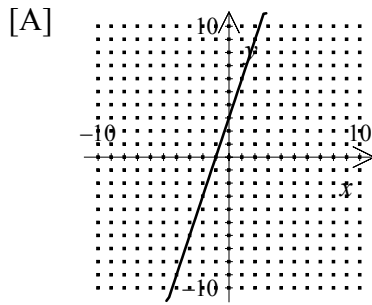
[B] a) true b) true c) false d) true

[C] a) false b) false c) true d) false

[D] a) false b) true c) true d) true

[10] _____

11. Graph: $3x + y = 3$



[11] _____

12. Given the sets $A = \{-9, -6, -3, -1\}$, $B = \{-6, -1\}$, and $C = \{-9, -7, -6, -4\}$, tell which of the following statements are true and which are false.

a) $-1 \in B$ b) $-7 \in B$ c) $-7 \notin A$ d) $-4 \in A$

[A] a) true b) true c) true d) true

[B] a) true b) false c) true d) false

[C] a) false b) false c) false d) false

[D] a) false b) true c) false d) true

[12] _____

13. Add. Write the answer with all exponents positive. $x^{-1}y + 3z^{-1}$

[A] $\frac{y+3}{xz}$

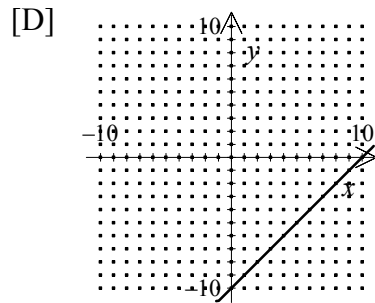
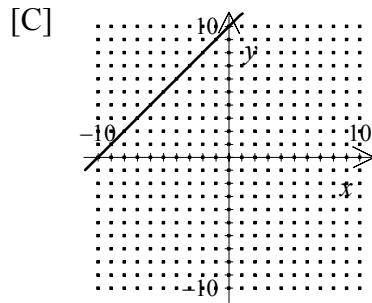
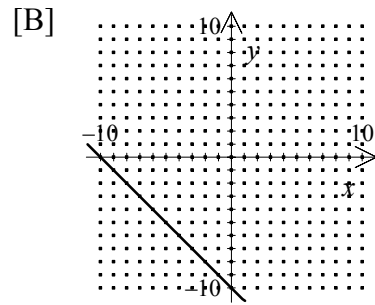
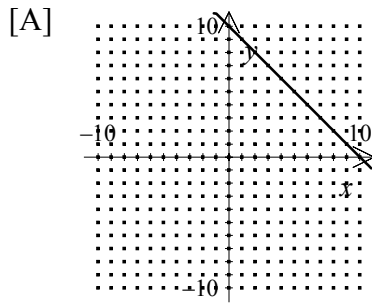
[B] $\frac{yz+3x}{xz}$

[C] $\frac{xz+3y}{yz}$

[D] $\frac{yz+x}{3xz}$

[13] _____

14. Graph: $x + y = 10$



[14] _____

15. Add. Write the answer with all exponents positive. $x^2y^{-3} + 5z^{-2}$

[A] $\frac{y^3z^2 + 5x^2}{x^2z^2}$

[B] $\frac{x^2z^2 + y^3}{5y^3z^2}$

[C] $\frac{x^2z^2 + 5y^3}{y^3z^2}$

[D] $\frac{x^2 + 5}{y^3z^2}$

[15] _____

Bonus!!!

16. During the hockey season Monique scored goals on 29% of the shots she took. If she scored 145 goals, how many shots did she take?

[A] 500

[B] 4205

[C] 421

[D] 50

[16] _____