

1. Solve: $3y - 9 = -2y + 4$

(a) $y = -5$

(b) $y = \frac{5}{13}$

(c) $y = \frac{13}{5}$

(d) $y = 13$ Solution: **C**.

2. Evaluate: $|4 - 7|$

(a) -11

(b) -3

(c) 3

(d) 11 Solution: **C**.

3. If $a = -1$ and $b = -2$, find the value of $2a^3b^2$.

(a) -8

(b) -3

(c) 2

(d) 8 Solution: **A**.

4. Simplify the expression $3(x - 2) - 2(5x - 2)$

(a) $-7x - 2$

(b) $-7x - 10$

(c) $-7x - 4$

(d) $-3x - 2$ Solution: **A**

5. Solve: $4 - x = 3(x - 7)$

(a) $x = -\frac{17}{2}$

(b) $x = \frac{25}{4}$

(c) $x = \frac{17}{4}$

(d) $x = -\frac{25}{2}$ Solution: **B**

6. Evaluate: $\frac{(-4)(-3)(5)}{-1+5}$

- (a) -7
- (b) 11
- (c) -12
- (d) 15 Solution: **D**.

7. Solve: $\frac{a-10}{5} = -3$

- (a) $a = -5$
- (b) $a = -1$
- (c) $a = 1$
- (d) $a = 5$ Solution: **A**.

8. What is the y -intercept of the line with equation $3x + 2y = 30$?

- (a) $(10, 15)$
- (b) $(15, 10)$
- (c) $(0, 15)$
- (d) $(10, 0)$ Solution: **C**

9. A certain triangle's longest side is one centimeter less than six times the shortest side. The other side is five times the shortest side. The perimeter is thirty-five centimeters. Find the length of the longest side.

- (a) 3 centimeters
- (b) 11 centimeters
- (c) 17 centimeters
- (d) 35 centimeters Solution: **C**

10. Solve: $2x + 3 < 4x + 9$

- (a) $x > 1$
- (b) $x < -3$
- (c) $x > -3$
- (d) $x > -1$ Solution: **C**

11. Simplify: $\frac{3}{4} \cdot 6 - 5 \cdot \frac{5}{2}$

(a) -8

(b) $\frac{15}{8}$

(c) 4

(d) $\frac{7}{2}$ Solution: **A**

12. Solve: $\frac{3t}{4} - 10 = -4$

(a) $t = 12$

(b) $t = 8$

(c) $t = -2$

(d) $t = 2$ Solution: **B**.

13. Solve: $3w - 5 < 5(w - 2)$

(a) $w > \frac{5}{2}$

(b) $w < -\frac{3}{2}$

(c) $w < \frac{3}{2}$

(d) $w > \frac{15}{8}$ Solution: **A**.

14. Give the x -intercept of the line given by $5x - y = -10$.

(a) $(5, -1)$

(b) $(2, 0)$

(c) $(-2, 10)$

(d) $(-2, 0)$ Solution: **D**.

15. A rectangle has a width which is seven inches less than its length. The perimeter is 46 inches. Find the *area*.

(a) 690 square inches

(b) 529 square inches

(c) 120 square inches

(d) 30 square inches Solution: **C**

Other non-multiple choice questions for review:

16. Evaluate the following.

i) $\frac{5}{6} - \frac{5}{4} = -\frac{5}{12}$

ii) $\frac{2}{3} \cdot \frac{5}{8} = \frac{5}{12}$

iii) $\frac{4^2}{5} - 3^2 = -\frac{29}{5}$

iv) $\frac{5 - 3}{(-2)(-4)(-6)} = -\frac{1}{24}$

v) $9 - |-3| = 6$

vi) $x - y^2z$, where $x = -6$, $y = -3$, and $z = 2$ -24

17. Solve:

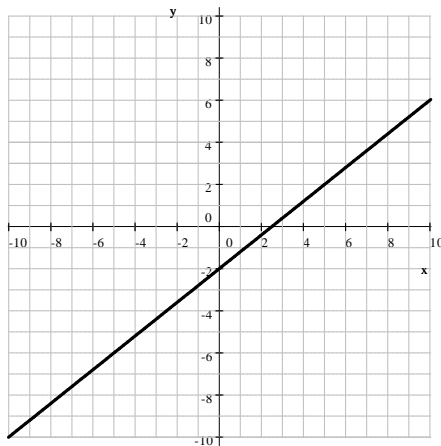
i) $2x - 5 = 17$ $x = 11$

ii) $7(j - 5) + 8 = 2(j + 5) + 5j$ no solution

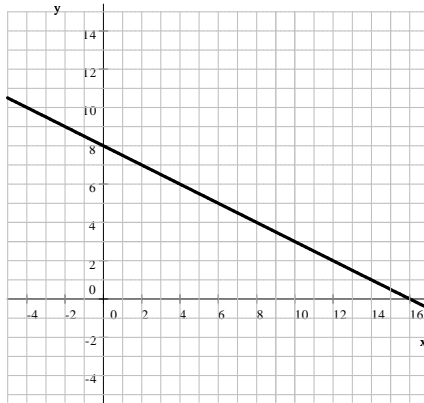
iii) $\frac{t - 5}{12} = 4$ $t = 53$

18. Graph the following lines:

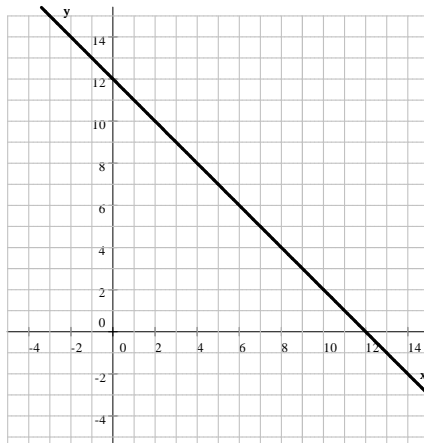
(a) $4x - 5y = 10$



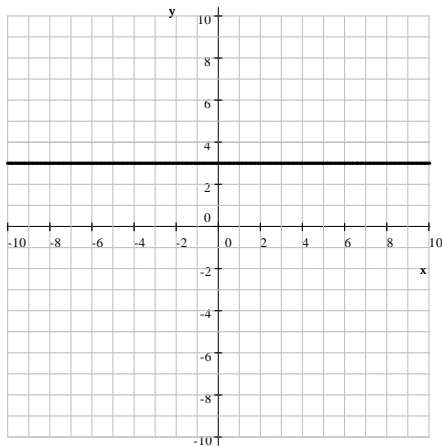
(b) $y = 8 - \frac{x}{2}$



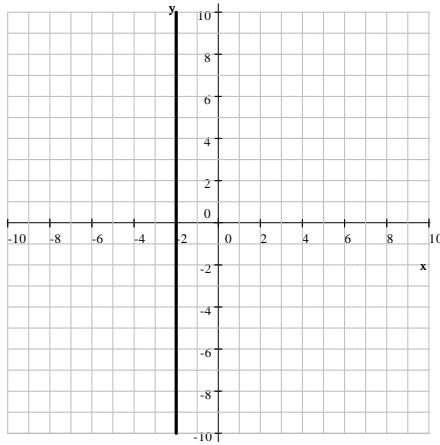
(c) $x + y = 12$



(d) $y = 3$



(e) $x = -2$



19. Mary bought four less than three times the number of books that Jose did. Together they bought sixteen books. How many did Jose buy? **5 books**