

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

(a)  $y = -5$

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

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

(d)  $y = 13$

2. Evaluate:  $|4 - 7|$

(a)  $-11$

(b)  $-3$

(c)  $3$

(d)  $11$

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

(a)  $-8$

(b)  $-3$

(c)  $2$

(d)  $8$

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

(a)  $-7x - 2$

(b)  $-7x - 10$

(c)  $-7x - 4$

(d)  $-3x - 2$

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

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

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

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

(d)  $x = -\frac{25}{2}$

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

- (a)  $-7$
- (b)  $11$
- (c)  $-12$
- (d)  $15$

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

- (a)  $a = -5$
- (b)  $a = -1$
- (c)  $a = 1$
- (d)  $a = 5$

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

- (a)  $(10, 15)$
- (b)  $(15, 10)$
- (c)  $(0, 15)$
- (d)  $(10, 0)$

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

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

- (a)  $x > 1$
- (b)  $x < -3$
- (c)  $x > -3$
- (d)  $x > -1$

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

(a)  $-8$

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

(c)  $4$

(d)  $\frac{7}{2}$

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

(a)  $t = 12$

(b)  $t = 8$

(c)  $t = -2$

(d)  $t = 2$

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

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

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

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

(d)  $w > \frac{15}{8}$

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

(a)  $(5, -1)$

(b)  $(2, 0)$

(c)  $(-2, 10)$

(d)  $(-2, 0)$

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

Other non-multiple choice questions for review:

16. Evaluate the following.

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

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

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

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

v)  $9 - |-3| =$

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

17. Solve:

i)  $2x - 5 = 17$

ii)  $7(j - 5) + 8 = 2(j + 5) + 5j$

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

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?