

118

1) Find the absolute value: (2 points each.)

+4
a. $|24| = 24$

b. $|-9| = 9$

2) Find $-(-x)$ when: (2 points each.)

+4
a. $x = 6$

$-(-6) = 6$

b. $x = -5$

$-(-(-5)) = -5$

Simplify. 2 points each.

+10
3) $-6 + 4 = -2$

7) $-8 \cdot -7 = 56$

4) $4 + (-9) = -5$

8) $-2 + 2 = 0$

5) $56 \div -7 = -8$

9) $7 + (-3) = 4$

6) $3 \cdot -9 = -27$

10) $-64 \div -8 = 8$

Use order of operations to simplify. (Show your work.) 10 points each.

+40
11) $6 - 7^2 =$

$6 - 49 = -43$

12) $4 - |9 - 4^2| =$

$4 - |9 - 16| = 4 - |-7| = 4 - 7 = -3$

13) $-3[7 - (6 - 9)] =$

$-3[7 - (-3)] = -3[7 + 3] = -3[10] = -30$

14) $-(8 + 2) - (-7)^2 =$

$-(10) - (49) = -59$

Use the distributive law to write an equivalent expression. 3 points each.

+10
15) $-4(2x + y - 3z)$

$-8x - 4y + 12z$

16) $2(x + y)$

$2x + 2y$

66

What are the terms and coefficients in each expression? 2 points each.

17) $5x^2 + 8x - 9$ the terms are: $5x^2, 8x, -9$
the coefficients are:

5, 8

18) $3x^3 + x^2 - 3$ the terms are: $3x^3, x^2, -3$
the coefficients are:

3, 1

Combine like terms. 4 points each.

19) $6a - 7 + 2 + a + 3$ $7a - 7 + 2 + 3$
 $7a - 5 + 3 = 7a - 2$

20) $-3x^2 + 2y + 4 - 4x^2 + 3y$
 $-3x^2 - 4x^2 + 2y + 3y + 4 = -7x^2 + 5y + 4$

21) $6xy - 2x^2 - 6 + 4x^2 - 7xy$
 $6xy - 7xy - 2x^2 + 4x^2 - 6 = -xy + 2x^2 - 6$

Solve. (Show your work.) 5 points each.

22) $-3x + 1 = 13$
 $-3x = 12$
 $x = -4$

23) $2a + 5 = -9$
 $2a = -14$
 $a = -7$

24) $-28 = 7y$
 $y = -4$

25) $2 = 4x + 6$
 $4x = -4$
 $x = -1$

26) Evaluate $\frac{6}{a-b}$ for $a = 5$ and $b = -3$. (Show your work.) 10 points.

$\frac{6}{5-(-3)} = \frac{6}{5+3} = \frac{6}{8} = \frac{3}{4}$

14/6