

Homework Questions

p.24 #13-24, 27-34

29, 30, 34, 31, 18

$$18. -16 - [2 + (+6)] - [2 + (-6)]$$

$$-16 - 6 + 4 = \textcircled{-75}$$

$$29. 7(x+2) + 4(x-4)$$

$$7x + 14 + 4x - 16$$

$$\textcircled{11x - 2}$$

$$30. 4(3-y) + 2(1-y)$$

$$12 - 4y + 2 - 2y$$

$$\textcircled{-6y + 14}$$

$$31. 7P - 4Q + 3Q - 10P$$

$$\textcircled{-3P - 7Q}$$

$$34. (6x - 5y + 4) + 2(-2x + 3y - 2)$$

$$6x - 5y + 4 - 4x + 6y - 4$$

$$\textcircled{2x + y}$$

$$33. (-2r + s + 5) + 2(r - 3s + 2)$$

$$-2r + s + 5 + 2r - 6s + 4$$

$$\textcircled{-5s + 9}$$

Homework Assessment

8/31

20. $(3 - 6 - 9) - [8 + (-4) - (-7)]$

30. $4(3 - y) + 2(1 - y)$

remember to
show your work!



Multiplication

many ways to write multiplication:

~~5×3~~ $(5)(3)$ $5 \cdot 3$

multiplying with negatives

$$(-)(-) = +$$

$$(-)(+) = -$$

$$(+) (+) = +$$

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

$$(-)(+)(+)(-)(-)(+)(-)(-)(+) = -$$

An even number of negatives =
positive

An odd number of negatives =
negative

multiplying by zero

$$(0)(-7) = 0$$

$$(3/5)(0)(-12349) = 0$$

Anything times zero is zero!

multiplying by negative 1

$$(2)(-1) = -2$$

$$(-1)(9/14) = -9/14$$

$$(-1)(-5) = 5$$

Multiplying by negative 1, just
changes the sign

$$\begin{array}{l} (-3)(-2)(-1)(4)(5) \\ \quad \quad \quad \underbrace{\hspace{2cm}} \\ -(6 \cdot 20) \\ -120 \end{array}$$

your turn!

$$(-5)(-2)(3)(-1)$$

$$-30$$

$$24(-15)(0)(13)$$

$$0$$

multiplying with fractions

Multiply numerators together.

Multiply denominators together.

Whole numbers go in the numerator.

$$\left(\frac{3}{4}\right)\left(\frac{-5}{1}\right)\left(\frac{-16}{1}\right)\left(\frac{1}{5}\right) = \frac{3 \cdot \cancel{5} \cdot \cancel{16}^4}{\cancel{4}_1 \cdot \cancel{5}} = \frac{24\cancel{0}}{2\cancel{0}} = \textcircled{12}$$

$\textcircled{12}$

your turn!

$$(-4) \cdot 3 \cdot (-2) \left(\frac{1}{3}\right) \quad (-4)(3)(-2)\left(\frac{1}{3}\right)$$

$$= 8$$

Exponents: repeated multiplication

$$\begin{aligned}(-5)^2 &= (-5)(-5) = 25 \\(-5)^3 &= (-5)(-5)(-5) = -125 \\(-2)^2 &= (-2)(-2) = 4 \\(-2)^3 &= (-2)(-2)(-2) = -8\end{aligned}$$

$$\begin{aligned}(-1)^2 &= 1 \\(-1)^3 &= -1 \\(-1)^4 &= 1 \\(-1)^5 &= -1 \\(-1)^9 &= -1 \\(-1)^{20} &= 1\end{aligned}$$

(negative)^{even} = positive
(negative)^{odd} = negative

$$(-3)^2(1/27)(-12)$$

$$(-3)^2\left(\frac{1}{27}\right)(-12)$$

$$9 \cdot \frac{1}{27} \cdot -12$$

$$\frac{\cancel{9} \cdot -12}{\cancel{27} 3} = (-4)$$

Your turn!

$$(-2)^3\left(\frac{3}{8}\right)\left(-\frac{1}{2}\right) = \frac{3}{2} = 1\frac{1}{2} = 1.5$$

Multiplying Variables

unlike addition, you can multiply anything together

$$2(-3x)(-5y)$$

$$(-4x)(z)(\text{bananna})$$

your turn!

$$(-5r)(-2s)(-6)$$

Homework: p.30 #1-18

Attachments

gremlin