

$$(25 - 5n) \div (-5)$$

$$\left[\begin{array}{r} 25 \\ \hline -5 \end{array} \right] \left[\begin{array}{r} 5n \\ \hline -5 \end{array} \right]$$

$$-5 + n$$

$$\frac{-26c^2 + 39c - 13}{-13}$$

$$\left[\begin{array}{r} -26c^2 \\ -13 \end{array} \right] \left[\begin{array}{r} 39c \\ -13 \end{array} \right] \left[\begin{array}{r} 13 \\ -13 \end{array} \right]$$

$$2c^2 - 3c + 1$$

Warm-Up

A) $-4(3x^2 + 5x - 3)$

$$-12x^2 - 20x + 12$$

c) $(4x + 2) \div -2$

$$\frac{4x}{-2} + \frac{2}{-2}$$

$$-2x - 1$$

January ~~10~~, 2019
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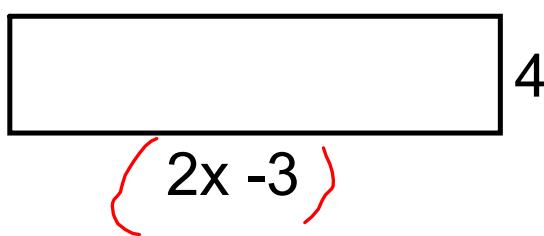
B) $\frac{-12x^2 + 4x - 16}{4}$

$$\begin{array}{r} 4 \\ \boxed{-12x^2} + \boxed{\frac{4x}{4}} \boxed{-\frac{16}{4}} \\ \hline -3x^2 + 1x - 4 \end{array}$$

C) $\frac{-4(x^2 + 8x - 16)}{2}$

$$\begin{array}{r} \frac{-4x^2}{2} \frac{-32x}{2} \frac{+64}{2} \\ \hline -2x^2 - 16x + 32 \end{array}$$

#2. Write a multiplication ^{sentence} for the area of the following rectangle.



$$\begin{aligned}
 A &= bh \\
 &= (2x - 3)(4) \\
 &= (4)(2x - 3) \\
 &= \boxed{4(2x - 3)}
 \end{aligned}$$

B. Write a simplified polynomial for the above rectangle.

$$8x - 12$$

C. Give the value of the area and perimeter if

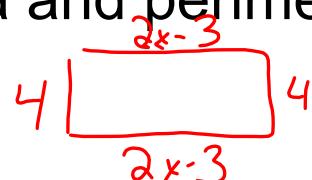
$$x=4$$

$$A = 8x - 12$$

$$8(4) - 12$$

$$32 - 12$$

$$20$$



$$\begin{aligned}
 P &= 4x + 2 \\
 &= 4(4) + 2 \\
 &= 18
 \end{aligned}$$

Section 5.6 Multiplying and Dividing a Polynomial by a Monomial

Remember Laws of Exponents

When Multiplying---Base is the same ADD the exponent

$$a) \ 3(2r) = 6r$$

$$b) \ (3r)(2r) = 6r^2$$

$$c) \ (3r^2)(4r) = 12r^3$$

Determine the product

A. $2x(3x + 4)$

$$\begin{array}{r} 6x^2 + 8x \\ \times 4(2x) \\ \hline \end{array}$$

B. $-2x(-3x - 4)$

$$6x^2 + 8x$$

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

$$-6x + 10$$

d) $3x(2x^2 - 4x + 3)$

$$6x^3 - 12x^2 + 9x$$

Determine the product

e) $8x(2x - 3y)$

$$16x^2 - 24xy$$

f) $-2x(4x^2y - 3x)$
 $-8x^3y + 6x^2$

Dividing a Monomial and a Binomial by a Monomial
 base is same subtract the exponents

A. $\frac{-10m^2}{2m^1}$

$$\frac{-10(m)(m)}{2m}$$

$$-5m^1$$

B. $\frac{30k^2 - 18k}{-6k}$

$$\begin{array}{r} \frac{30k^2}{-6k} \\ \frac{-18k}{-6k} \\ \hline -5k + 3 \end{array}$$

$-5k + 3k^0$

C. $\frac{-6r^2 + 4r}{2r}$

$$\frac{-6r^2}{2r} + \frac{4r}{2r}$$

$$-3r + 2$$

Find the product or quotient ← add exponents
same base subtract exponents with
same base

A. $-3x(-5x^2 - 10x + 5)$

$$15x^3 + 30x^2 - 15x$$

B. $\frac{-15y^2 - 18y}{3y}$

$$\begin{array}{r} \boxed{-\frac{15y^2}{3y}} - \frac{18y}{3y} \\ - 5y - 6 \end{array}$$

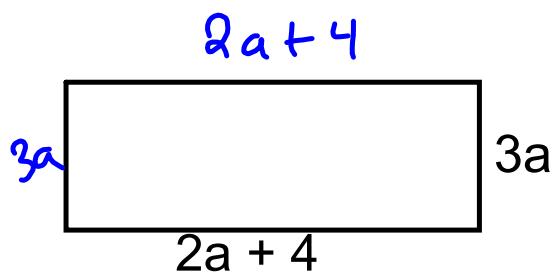
c) Determine the quotient

$$\frac{24x^2 + 6xy}{3x}$$

$$\begin{array}{r} \boxed{\frac{24x^2}{3x}} + \frac{6xy}{3x} \\ 8x + 2y \end{array}$$

D) $\frac{4x(3xy + 4x - 6x^2)}{2x}$

$$\begin{array}{r} \frac{12x^2y}{2x} + \frac{16x^2}{2x} - \frac{24x^3}{2x} \\ 6xy + 8x - 12x^2 \end{array}$$



Write a simplified expression for

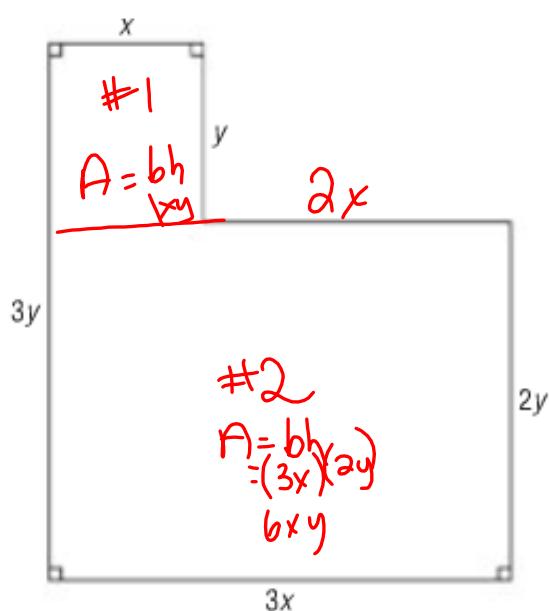
Perimeter

$$P = 10a + 8$$



Area = bh
 $3a(2a+4)$
 $6a^2 + 12a$

22. Write a polynomial for the perimeter of this shape. Simplify the polynomial.



$$P = 6y + 6x$$

$$\text{Area } \#1 + \text{Area } \#2$$

$$1xy + 6xy$$

$$7xy$$

Homework

Pg 256 #257

#10 [a], #11, #12, #16,

#20 [a,c,e], #21 [a, c,e] #22 *

Quiz Review... Quiz Monday section 5.5-5.6

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22 [a, c, e, g, i, k]

23 [a, c]

24 b

28

29

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#2 sketch the shape

#8



Answers