



Warm-Up
Grade 9
Dec 2, 2014



Simplify the following (Show all work)

1) $(-4v^5 - 11v + 16) + (20v^5 + 3v - 10)$

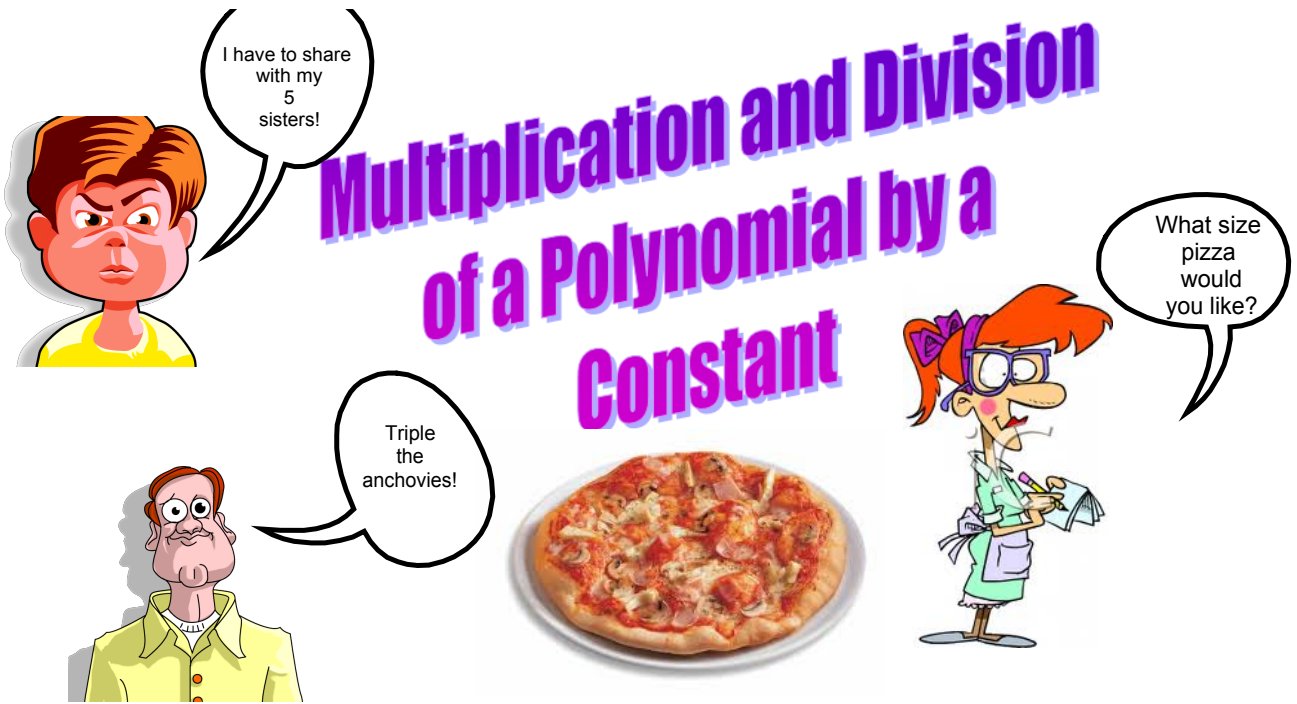
$$\begin{aligned}
 & -4v^5 - 11v + 16 + 20v^5 + 3v - 10 \\
 & -4v^5 + 20v^5 - 11v + 3v + 16 - 10 \\
 & 16v^5 - 8v + 6
 \end{aligned}$$

For adding just drop brackets and add

2) $(15w^2 + 3w - 2) - (-5w^2 - 4w + 11)$

$$\begin{aligned}
 & 15w^2 + 3w - 2 + 5w^2 + 4w - 11 \\
 & 15w^2 + 5w^2 + 3w + 4w - 2 - 11 \\
 & 20w^2 + 7w - 13
 \end{aligned}$$

Add the opposite
For subtracting change the subtraction sign to "+"
and switch all signs in the bracket, then add





Things you already know!!

$$4 \times 5 = 20$$

$$(4)(5) = 20$$

$$4(5) = 20$$

Things you need to know :)

Why didn't I use this example??

$$(4)(m) = 4m$$

$$6(z) = 6z$$



$$\#1) \quad 4(6w) = 24w$$

$$\#3) \quad 4(6w^2 - 7p + 11) \\ = 24w^2 - 28p + 44$$

Multiply each term in the brackets by the term on the outside of the brackets.

$$\#2) \quad 4(6w - 11)$$

Multiply coefficients with coefficients and variables with variables

$$= 24w - 44$$



Things you already know!!

$$30 \div 3 = 10$$

$$\frac{30}{3} = 10$$



Things you need to know :)

$$60z \div 15 = 4z$$

$$\frac{48m}{4} = 12m$$



#1

$$\frac{100r^2}{5}$$

$$= 20r^2$$

Divide coefficients with coefficients and variables with variables

#2

$$\frac{100r^2 + 50m}{5}$$

Separate the polynomial to make a sum of fractions.

$$= \frac{100r^2}{5} + \frac{50m}{5}$$

$$20r^2 + 10m$$

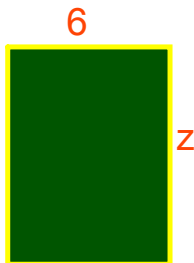
#3

$$\begin{aligned} & (100r^2 + 50m - 65z) \div (-5) \\ = & \frac{100r^2}{-5} + \frac{50m}{-5} - \frac{65z}{-5} \\ = & -20r^2 - 10m + 13z \end{aligned}$$

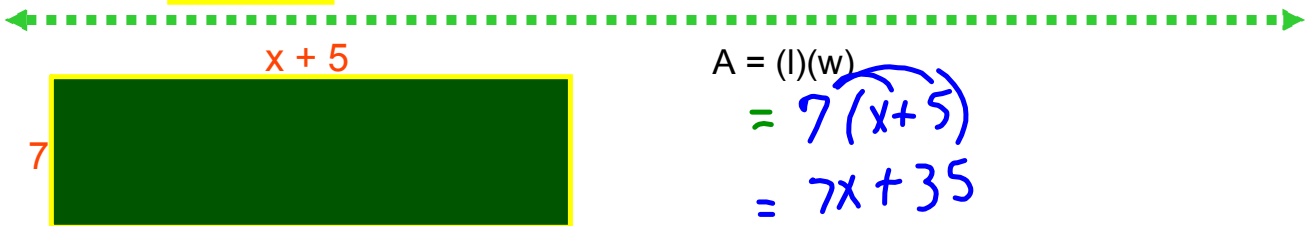
A = length x width

A = (l)(w)

Write the multiplication statement for the area of each rectangle.



$$\begin{aligned} A &= (l)(w) \\ &= (6)(z) \\ &= 6z \end{aligned}$$



$$\begin{aligned} A &= (l)(w) \\ &= 7(x+5) \\ &= 7x + 35 \end{aligned}$$

A. $3(2x - 6y + 2z)$
 $6x - 18y + 6z$

B. Try these:
 $\frac{36p + 45q - 81}{9}$
 $4p + 5q - 9$

C. $(30m - 15a + 9t - 54h) \div (-3)$
 $-10m + 5a - 3t + 18h$

D. $-4(6z - 9)$
 $-24z + 36$

E. $(11y^2 - 8y + 10)(5)$
 $55y^2 - 40y + 50$

F. $(49t^2 - 7) \div (7)$
 $7t^2 - 1$



Class/Homework



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No Algebra Tiles

7a, 8a

9ab

11-16