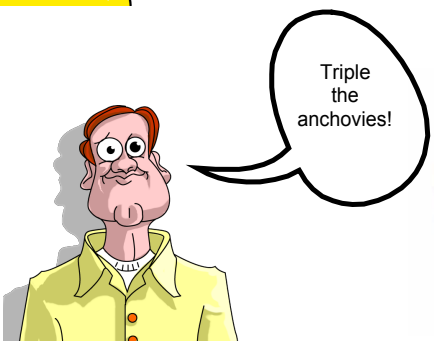
Multiplication and Division of a Polynomial by a Constant



State the degree → Highest exponent

(7) $5k^{1}-9$ Assumed.

14^{0}

$2m^{2}+7m$

$2+2$

State the Coefficent.

$-4n^3 + 3n^2$

$-4, 3$

Variable => letter.

$7n^2 + 9$

7

Not a coefficent
Doesn't have a variable

Constant.

20) Assume $+5p^2 - 4p^3 - p^4 - 6p^4 - 3p - p^2$

① Group like terms < same variable / same exponent (degree)

Write it in Descending order

$-1p^4 - 6p^4 - 4p^3 + 5p^2 - 1p^2 - 3p$

$-7p^4 - 4p^3 + 4p^2 - 3p$

-> -6

Things you already know!!

$4 \times 5 = 20$

$(4)(5) = 20$

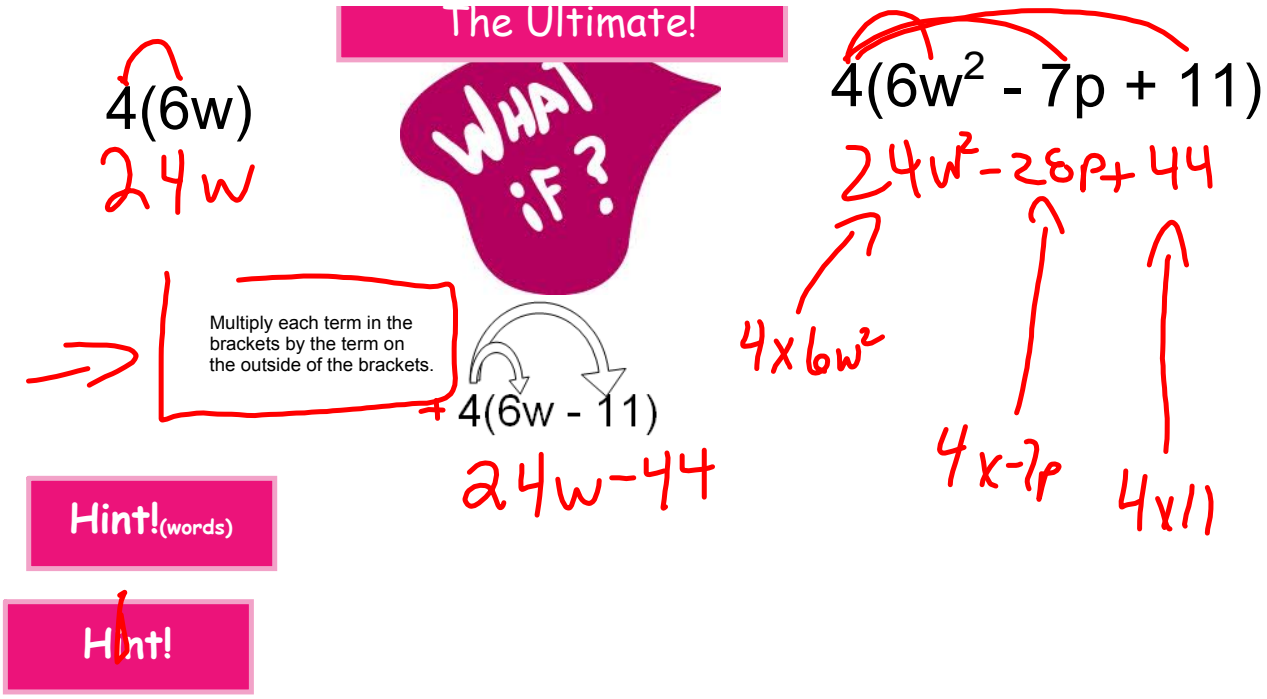
$4(5) = 20$

Things you need to know :)

Why didn't I use this example??

$(4)(m) = 4m$

$6(z) = 6z$


The Ultimate!
WHAT IF ?
4(6w)
24w
Multiply each term in the brackets by the term on the outside of the brackets.
+ 4(6w - 11)
24w-44
4(6w² - 7p + 11)
24w²-28p+44
4x6w²
4x-7p
4x11
Hint!(words)
Hint!

Things you already know!!

$30 \div 3 = 10$

division sign

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

num.

den.

Things you need to know :)

$60z \div 15 = 4z$

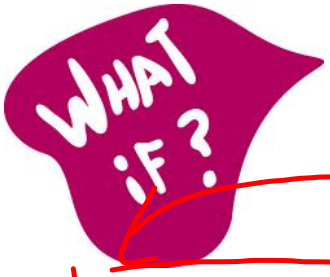
$\frac{60}{15} z$

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

$\frac{48}{4} m$

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

$20r^2$



$(100r^2 + 50m - 65z) \div (-5)$

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

+ − seperates the term

Separate the polynomial to make a sum of fractions.

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

$20r^2 + 10m$

$\frac{100r^2}{-5} + \frac{50m}{5} + \frac{65z}{5}$

$-20r^2 - 10m + 13z$

Hint! *(Words)*

Hint! *(visual)*

mate!

The Ulitmate :)

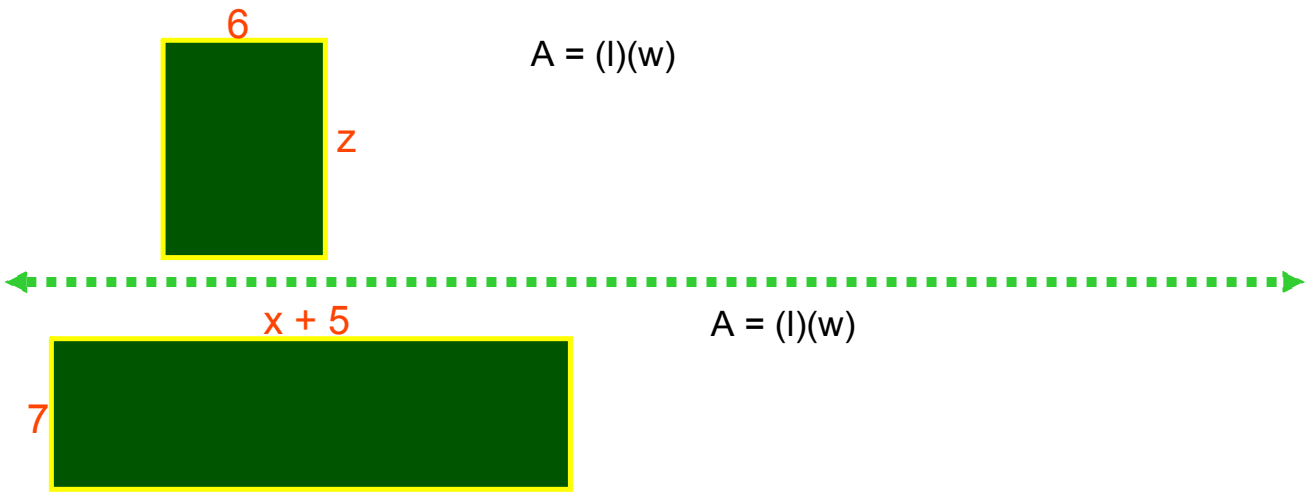
Homework Pg 246-247

7a, 8a, 9abc

A = length x width

A = (l)(w)

Write the multiplication statement for the area of each rectangle.



A = (l)(w)

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Try these:

$3(2x - 6y + 2z)$

$\frac{36p + 45q - 81}{9}$

$(30m - 15a + 9t - 54h) \div (-3)$

$-4(6z - 9)$

$(11y^2 - 8y + 10)(5)$

$(49t^2 - 7) \div (7)$