

Take a small white board, rag, & dry erase marker

Simplify each using the Distributive Property:

1. $6(4w - 5) =$

$= 6 \cdot 4w - 5 \cdot 6$
 $= 24w - 30$

2. $-7(10 - 3c) =$

$= -70 + 21c$

3. $-8(8k + 9) =$
 opposite
 $-1(8k + 9)$

$-8k - 9$

4. $(2P + 5)8 =$

$16p + 40$

5. $\frac{1}{4}(8a + 36) =$

$= 2a + 9$

6. $\frac{7}{6}(12g - 9) =$
 $= 14g - \frac{21}{2}$

$\frac{7}{6} \cdot 12g - \frac{7}{6} \cdot 9 \div 3 = 3$
 $\div 3 = 2$

Simplify each:

$7k \cdot 8k = 7 \cdot 8 \cdot k \cdot k = 56k^2$

$5w^1 \cdot w^3 = 5w^4$
 $5 \cdot w \cdot w \cdot w \cdot w$

$6c^2 \cdot 8c^4 = 48c^6$

$10a^5b \cdot 3a^4 = 30a^9b$

$2mx^2 \cdot 7m^2x^3 = 14m^3x^5$
 $m \cdot x \cdot x \cdot m \cdot m \cdot x \cdot x \cdot x$

7. $-6m(3m + 4) =$
 $-18m^2 - 24m$

8. $6b^2(2b^3 + 7b) =$
 $12b^5 + 42b^3$

9. $5xy(4x^2y - 6y^3) =$
 $20x^3y - 30xy^4$

Use this variable expression:

$$-14w^2 - 18wx + 4x^2 - 30$$

- How many terms are there?

4

Terms are separated by addition or subtraction.

If variables and numbers are connected with multiplication and division they create a single term.

Use this variable expression:

$$-14w^2 - 18wx + 4x^2 - 30$$

- What do we call the numbers
-14, -18, and 4?

Coefficients

Use this variable expression:

$$-14w^2 - 18wx + 4x^2 - 30$$

- What do we call the number -30?

A constant

Term:

could be:

- just a number ex: 5 or -6 or 3.2 or $-\frac{9}{4}$
- just a variable (with or without an exponent) ex: Q or m^3
- the product of more than one variable ex: mn^2 or A^3B^7C
- the product of a number and a variable or variables.

ex: 7km or $-3c^2$ or $\frac{w^5y^3}{6}$