

Unit 1 (2)
Notes of
Examples

Whenever we evaluate an expression for given values, we must substitute for variables using quantity notation (ie. \rightarrow parenthesis & a skeleton)

(ex) $a = 2$ $b = 4$ $c = 7$
 Evaluate $(a)(b^2 + (c))$
 $(2)(4)^2 + (7)$
 $(2)(16) + (7)$
 $32 + 7$
 $\boxed{39}$

G - Grouping $\rightarrow (), [], \{ }, \frac{\quad}{\quad}, \sqrt{\quad}$
 E - Exponents
 MD $\rightarrow * \div$
 AS $\rightarrow + -$

(ex) Evaluate $3x^2 - 4x$ when $x = -2$
 $3(-2)^2 - 4(-2)$
 \downarrow
 $(-2)^2$
 $(-2)(-2)$
 \downarrow
 $3(4) - 4(-2)$
 $12 + 8$
 $\boxed{20}$

Make sure you
immediately
put grouping
symbols @
numerator &
denominator

(c) $a = -3$ $b = -5$ $\frac{(a^2 + (b^2))}{(a - (b))}$
 $\frac{((-3)^2 + (-5)^2)}{(-3) - (-5)}$
 $\rightarrow \frac{(9 + 25)}{(2)} \rightarrow \frac{34}{2} \rightarrow \boxed{17}$

Combining Like Terms

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like terms have the same variable(s) & exponent(s).

$$(10) 4xy - 6xy + 5y - 9x$$


$$-2xy + 5y - 9x$$

$$(14) 6n^2 - 2n + 3 + 5n^2 - 9n + 6$$

$$11n^2 - 11n + 9$$

$$(7) 6a^2b^2 + 3ab^2 - a^2b^2 - 4ab^2$$

$$5a^2b^2 - ab^2$$

(19)  $x-3$
 $7x+1$

$$P = 2w + 2l$$
$$P = 2(x-3) + 2(7x+1)$$
$$2x - 6 + 14x + 2$$
$$16x - 4$$