

Overview of problems



Example Set: A

State the meaning of the variable expression

$$4x + 2$$

$$6a - 3b$$

$$\frac{y}{2} + 5$$

$$d = rt$$

$$(x + y) + z$$

$$\frac{7xyz}{(m - n)}$$



Example Set: B

Write as a variable expression

9 times y plus 5

(x plus m) divided by (2 times r)

a times b times c minus two

c to the z power

the difference of n and p



Example Set: C

Evaluate the expression

$$3x - 2 \quad \text{when } x = 9$$

$$8a + 5c \quad \text{when } a = 2, c = 10$$

$$5y + 2(y - 1) \quad \text{when } y = 6$$

$$(xyz)^n \quad \text{when } x = 1, y = 2, z = 3, n = 4$$



Example Set: D

Evaluate the expression

$$xy + (z - 1) \text{ when } x=2, y=4, z=8$$

$$[5x(4 + x)] \div y \text{ when } x=3, y=2$$

$$\frac{3.8a + 7.2x}{(x - a)} \text{ when } a=1.9$$
$$x=2.5$$

$$a^2 + b^2 = c^2 \text{ when } a=3, b=4, c=5$$

Overview of problems- KEY



Example Set: A

State the meaning of the variable expression

$$4x + 2 = \text{"4 times } x \text{ plus } 2\text{"}$$

$$6a - 3b = \text{"6 times } a \text{ minus } 3 \text{ times } b\text{"}$$

$$\frac{y}{2} + 5 = \text{"} y \text{ divided by } 2 \text{ plus } 5\text{"}$$

$$d = rt = \text{"} d \text{ equals } r \text{ times } t\text{"}$$

$$(x + y) + z = \text{"the sum of } x \text{ and } y \text{ plus } z\text{"}$$

$$\frac{7xyz}{(m - n)} = \text{"the product of } 7, x, y, z \text{ divided by the difference of } m \text{ and } n\text{"}$$



Example Set: B

Write as a variable expression

$$9 \text{ times } y \text{ plus } 5 = 9y + 5$$

$$(x \text{ plus } m) \text{ divided by } (2 \text{ times } r) = \frac{x + m}{2r}$$

$$a \text{ times } b \text{ times } c \text{ minus } 2 = abc - 2$$

$$c \text{ to the } z \text{ power} = c^z$$

$$\text{the difference of } n \text{ and } p = (n - p)$$



Example Set: C

Evaluate the expression

$$3x - 2 \quad \text{when } x = 9 \quad \rightarrow 25$$

$$8a + 5c \quad \text{when } a = 2, c = 10 \quad \rightarrow 66$$

$$5y + 2(y - 1) \quad \text{when } y = 6 \quad \rightarrow 40$$

$$(xyz)^n \quad \text{when } x = 1, y = 2, z = 3, n = 4 \quad \rightarrow 1296$$



Example Set: D

Evaluate the expression

$$xy + (z - 1) \quad \text{when } x=2, y=4, z=8$$
$$= 15$$

$$[5x(4 + x)] \div y \quad \text{when } x=3, y=2$$
$$= 52.5$$

$$\frac{3.8a + 7.2x}{(x - a)} \quad \text{when } a=1.9$$
$$x=2.5$$
$$= 42.03$$

$$a^2 + b^2 = c^2 \quad \text{when } a=3, b=4, c=5$$
$$25 = 25$$