Dear Parents / Students

Due to the unprecedented situation, Knowledgeplus Training center is mobilized and will keep accompanying and supporting our students through this difficult time. Our Staff will be continuously, sending notes and exercises on a weekly basis through what's app and email. Students are requested to copy the notes and do the exercises on their copybooks. The answers to the questions below will be made available on our website on knowledgeplus.mu/support.php. Please note that these are extra work and notes that we are providing our students and all classes will be replaced during the winter vacation. We thank you for your trust and are convinced that, together, we will overcome these troubled times.

Knowledgeplus Training Center

Mathematics

Garde 9

Week 6

Notes and Exercise

Note:(All the Notes, Examples and Exercise are on the photos and Note:(Please copy all the Notes, Examples and Exercises on your copy book).

MATHEMATICS GRADE 8 WEEK 6

Recal

$$+ = -$$
$$- = +$$
$$\times = \div$$
$$\div = \times$$

$$+ = -$$
$$- = +$$
$$\times = \div$$
$$\div = \times$$

Example

A formula states that $y = 2x + k$

Find the value of

(a) y when $x = 4$ and $k = 2$, (b) k when $y = 5$ and $x = 3$

(c) x when $y = 8$ and $k = -2$.

Solution

(a)
$$y = 2x + k$$
$$y = 2(4) + 2$$
$$y = 8 + 2$$
$$y = 10$$

(b)
$$y = 2x + k$$
$$5 = 2(3) + k$$
$$5 = 6 + k$$
$$5 - 6 = k$$
$$-1 = k$$
$$k = -1$$

(c)
$$y = 2x + k$$
$$8 = 2x + (-2)$$
$$8 = 2x - 2$$
$$2x - 2 = 8$$
$$2x = 8 + 2$$
$$2x = 10$$
$$x = \frac{10}{2}$$
$$x = 5$$

$$\boxed{\begin{array}{l} a = b \\ b = a \end{array}}$$

$$\boxed{\begin{array}{l} \text{Note:} \quad a^2 = a \times a \\ \qquad\quad a^3 = a \times a \end{array}}$$

Example2

The volume, V, of the cuboid having lengnt 'L', breadth 'b' and height 'h' is given by V = Lbh. Find the value of

(a) V when L = 12, b = 10 and h 6

(b) h when V = 162, L = 9 and b = 3

Solution

volume = Lbh (Lengnt × breadth × height)

So you will have to replace it in the formula

(a) $V = Lbh$

$V = 12 \times 10 \times 6$

$V = 720$

(b) $V = Lbh$

$162 = 9 \times 3 \times h$

$162 = 27 \times h$

$27 \times h = 162$

$h = \dfrac{162}{27}$

$h = 6$

Attepmt:Ex1(a-l), Ex2(a-c), Ex3(a-b).

1. If $p = 7$, $q = -6$, $r = 10$ and $s = -4$, calculate:

   (a) $p + q$ (b) $p - s$

   (c) $r - q$ (d) $q^2 + s^2$

   (e) $p - r$ (f) $r + s^2$

   (g) $pq + r$ (h) $r - qs$

   (i) $3r + 6q$ (j) $5q - 3p$

   (k) $3s - r$ (l) $4q + 8s$
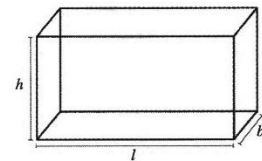
2. Circle the correct answer in each of the following.

   Given $a = 2$, $b = 4$ and $c = -3$.

   (a)   What is the value of y if $y = 2a + b$?

   A. 26   B. 8   C. 16   D. 88

   (b)   What is the value of y, if $y = c^2 + b$?

   A. −5   B. −2   C. −28   D. 13

   (c)   What is the value of y if $y = \dfrac{a^3}{2} - c$?

   A. 14.5   B. 7   C. 0   D. 6

3. The volume, V, of the cuboid having length 'l', breadth 'b' and height 'h' is given by $V = lbh$. Find the value of

   (a) V when $l = 10$, $b = 8$ and $h = 4$.

   (b) h when $V = 144$, $l = 6$ and $b = 4$.

Attempt:Ex5(a-c).

5. A formula states that $v = u + at$. Find the value of

a) v when $u = 5$, $a = 3$ and $t = 6$.

b) u when $v = 15$, $a = 2$ and $t = 4$.

c) t when $v = 25$, $u = 5$ and $a = 4$.