



BUKIT SION MIDDLE SCHOOL

1ST Sem, AY 2016 – 2017 ... where the abundance in life flows!

CHAPTER TEST: FORMULA TRANSFORMATION AND SIMPLE INEQUALITIES



NAME: _____

DATE: _____

CLASS: _____

MR EMMAN RECANEL

1. Transform each formula below according to the specified variable inside brackets.

(a) $y = a + bc$ (c)

(f) $m = n - 3x^2$ (x)

(b) $E = \frac{1}{2}mv^2$ (m)

(g) $y = \frac{a}{\sqrt{4x-b}}$ (x)

(c) $F = \frac{9c}{5} + 32$ (C)

(h) $y = \sqrt[3]{x} - z$ (x)

(d) $T = \sqrt{\frac{5}{V+1}}$ (V)

(i) $\frac{x+z}{3} = \frac{y+z}{4}$ (z)

(e) $c = kd^2 + e$ (d)

(j) $ma^2 = na^2 + 2$ (a)

$$(k) \quad y = \frac{2-x}{3+2x} \quad (x)$$

$$(p) \quad A = \frac{\theta\pi r^2}{360} \quad (r)$$

$$(l) \quad \sqrt[3]{ax+b} = k \quad (x)$$

$$(q) \quad V = \pi r^2 h + \frac{2}{3}\pi r^3 \quad (h)$$

$$(m) \quad p = a + \frac{bx^2}{3k} \quad (x)$$

$$(r) \quad z = \frac{y(z-y)}{x} \quad (z)$$

$$(n) \quad ax + by = k \quad (y)$$

$$(s) \quad b = \frac{a}{a-5} \quad (a)$$

$$(o) \quad R = m(a+g) \quad (a)$$

$$(t) \quad a - b\sqrt{x} = m \quad (x)$$

2. Solve each inequality below and show the number line for each.

(a) $a - 2 \geq 3$

(f) $3 < 2x - 5$

(b) $2 + 5f < 0$

(g) $8 - x \geq 3$

(c) $\frac{2x+1}{3} > 2$

(h) $4(p + 1) < 3(p - 4)$

(d) $3(x + 7) < 5x - 9$

(i) $2b + 1 \leq 5 - 4b$

(e) $\frac{4}{5}c - \frac{3}{4} \geq c - \frac{1}{2}$

(j) $\frac{d-2}{3} < \frac{2d+3}{5} + \frac{1}{6}$

3. (a) Solve for all the values of x in the inequality $3x - 5 < x + 1$.
Represent the solution set on a number line.

(b) Solve for all the values of x in the inequality $x < 2x$.
Represent the solution set on a number line.

(c) Hence, write all the integer values of x if $3x - 5 < x + 1$ and $x < 2x$.

4. If $x \leq 14\frac{1}{2}$ and $y \geq \frac{31}{6}$ write the:

(a) the least value of y if y is a whole number.

Answer: _____

(b) the largest value of x if x is a rational number.

Answer: _____

(c) all the values of x if x is a prime number.

Answer: _____

(d) the least value of y if y is even.

Answer: _____

(e) the smallest value of x^2 .

Answer: _____

(f) the smallest value of y if y is a square number.

Answer: _____