

Tutorial 2 B

NO:

DATE:

NAMA

: MAT NABIL B. MAT KOSIM

NO PENDAFTARAN : 051PP18F1032

10

i) $2(2-a)$

i) $2(2-a) \leq 4a-16$

$$4-2a \leq 4a-16$$

$$4-4-2a \leq 4a-16-4$$

$$-2a \leq 4a-20$$

$$4a-2a \leq 4a-4a-20$$

$$\frac{-6a}{-6} \geq \frac{-20}{-6}$$

$$a \geq 3\frac{1}{3}$$

2



$3\frac{1}{3}$

$[3\frac{1}{3}, \infty)$

2

1

ii) $\frac{a}{5} < \frac{2a-5}{-2}$

$$-2(a) < 5(2a-5)$$

$$-2a < 10a-25$$

$$-2a-10a < 10a-10a-25$$

$$\frac{-12a}{-12} > \frac{-25}{-12}$$

$$a > \frac{25}{12}$$

$$a > \frac{25}{12}$$



$\frac{25}{12}$

$(\frac{25}{12}, \infty)$

$(\frac{25}{12}, \infty)$

2

2

1

Tutorial 2b

For each of the following

(i) $2(2-a) \leq 4a-16$

a) Solve the following inequalities.

$$4-2a \leq 4a-16$$

$$4-2a-4a \leq 4a-4a-16$$

$$4-4-6a \leq -16-4$$

$$\frac{-6a}{-6} \leq \frac{-20}{-6}$$

$$a \geq \frac{10}{3} / 3.3$$

b) Illustrate the solution in number line.



c) State the interval notation.

$$[3.3, \infty)$$

ii) $\frac{a}{5} < \frac{2a-5}{-2}$

a. Solve the following inequalities.

$$-2a < 5(2a-5)$$

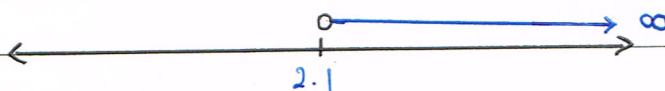
$$-2a < 10a-25$$

$$-2a-10a < 10a-10a-25$$

$$\frac{-12a}{-12} > \frac{-25}{-12}$$

$$a > 2.1$$

b) Illustrate the solution in number line.



c) State the interval notation

$$(2.1, \infty)$$

Tutorial 2b

i. $2(2-a) \leq 4a-16$

a. Inequalities:

$$4-2a \leq 4a-16$$

$$4+4-2a \leq 4a-16+4$$

$$-2a \leq 4a-20$$

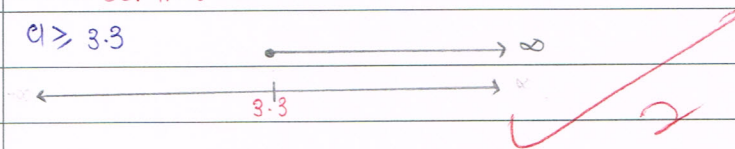
$$-2a-4a \leq -20$$

$$\frac{-6a}{-6} \leq \frac{-20}{-6}$$

$$a \geq 3.3$$

b. number line

$$a \geq 3.3$$



c. interval notation

$$[3.3, \infty)$$

ii. $\frac{a}{5} < \frac{2a-5}{-2}$

a. inequalities:

$$a(-2) < 5(2a-5)$$

$$-2a < 10a-25$$

$$-2a-10a < 25$$

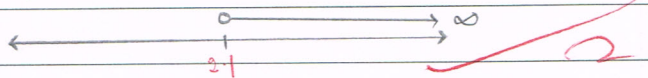
$$\frac{-12a}{-12} < \frac{25}{-12}$$

$$a > \frac{25}{12}$$

$$a > 2.1$$

$$a > 2.1$$

b. number line:



c. interval notation:

$$(2.1, \infty)$$

Question

a) i) $2(2-a) \leq 4a-16$

$$4-2a \leq 4a-16$$

$$4-2a+2a \leq 4a+2a-16$$

$$4 \leq 6a-16$$

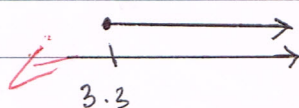
$$4+16 \leq 6a-16+16$$

$$\frac{20}{6} \leq \frac{6a}{6}$$

$$a \leq 3.33$$

$$\begin{array}{r} 4 \overline{) 10} \\ \underline{8} \\ 20 \end{array}$$

b) ~~Illustrate~~ Illustrate the solution in number line.



$$a \geq 1\frac{1}{2}$$

c) state the interval notation.
 $[3.3, \infty)$

ii) $\frac{9}{5} < \frac{2a-5}{-2}$

a) solve the following inequalities.

c) state the interval notation.
 $(23, \infty)$

$$a(-2) < 5(2a-5)$$

$$-2a < 10a-25$$

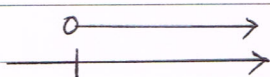
$$-2a+25 < 10a-25+25$$

$$\frac{23}{10} < \frac{10a}{10}$$

$$a < 2.3$$

b) illustrate the interval inequalities.

$$a < 2.3$$



i a) $2(2-a) \leq 4a - 16$

$= 4 - 2a \leq 4a - 16$

$= 4 - 4 - 2a \leq 4a - 16 - 4$

$= -2a \leq 4a - 16 - 4$

$= -2a - 4a \leq 4a - 4a - 16 - 4$

$= -2a - 4a \leq -16 - 4$

$= \frac{-6a}{-6} \leq \frac{-20}{-6}$

$= a \geq \frac{10}{3}$

$= a \geq 3.33$

ii a) $\frac{a}{5} \leq \frac{2a-5}{-2}$

$= -2(a) > 5(2a-5)$

$= -2a > 10a - 25$

$= -2a - 10a > 10a - 10a - 25$

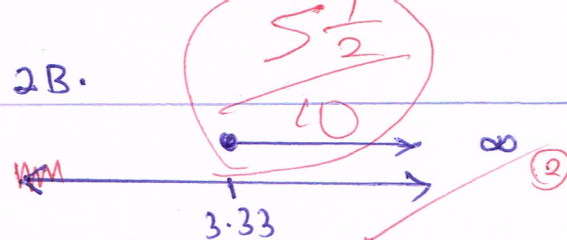
$= -2a - 10a > -25$

$= \frac{-12a}{-12} > \frac{-25}{-12}$

$a < \frac{25}{12}$

$a < 2.08$

i b)

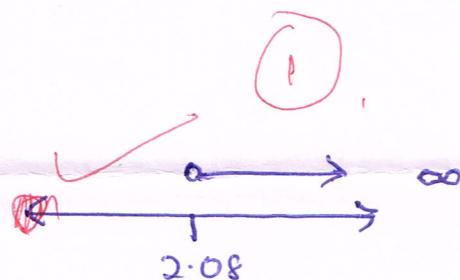


i c)

$[3.33, \infty)$

(1)

ii b)



ii c)

$(2.08, \infty)$

(1)

Question

For each of the following

(1) $2(2-a) \leq 4a - 16$

(2) $\frac{a}{5} \leq \frac{2a-5}{-2}$

(a) solve the following inequalities

$2(2-a) \leq 4a - 16$

$4 - a \leq 4a - 16$

$4 - a \leq 4a - 16 - 4$

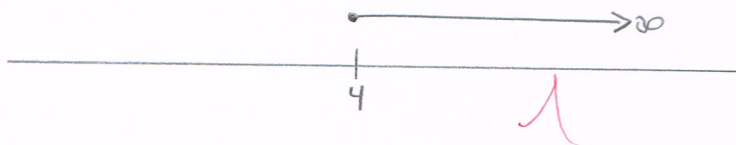
$-a \leq 4a - 20$

$-a - 4a \leq 4a - 20 - 4a$

$\frac{-5a}{-5} \geq \frac{-20}{-5}$

$a \geq 4$

(b) illustrate the solution in number line



(c) state the interval notation

$[4, \infty)$

(a) solve the following inequalities

$\frac{a}{5} \leq \frac{2a-5}{-2}$

$-2(a) < 5(2a-5)$

$-2a < 10a - 15$

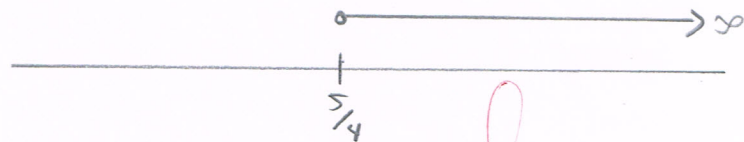
$-2a - 10a < 10a - 15 - 10a$

$\frac{-12a}{-12} > \frac{-15}{-12}$

$a > \frac{1+1}{\times 4}$

$a > \frac{5}{4}$

(b) illustrate the solution in number line



(c) state the interval notation

$(\frac{5}{4}, \infty)$