

NO.:

Date:

Question 1.

a.  $7(k+3) + 7 > 2k - 5$

$7k + 21 + 7 > 2k - 5$

$7k + 21 + 7 - 2k > 2k - 5 - 2k$

$5k + 28 > -5$

$5k + 28 - 28 > -5 - 28$

$$\frac{5k}{5} > \frac{-33}{5}$$

$$k > \frac{-33}{5}$$

d.  $\frac{4a}{10} < \frac{7a - 11}{-7}$

$4a(-7) < 10(7a - 11)$

$-28a < 70a - 110$

$-28a - 70a < 70a - 110 - 70a$

$$\frac{-98a}{-98} < \frac{-110}{-98}$$

$$a > \frac{110}{98}$$

b.  $7 \leq -6(t-3)$

$7 \leq -6t + 18$

$7 \leq -6t + 6t + 18$

$7 + 6t \leq 18$

$7 + 6t - 7 \leq 18 - 7$

$$\frac{6t}{6} \leq \frac{11}{6}$$

$$t < \frac{11}{6}$$

c.  $\frac{3(11-q)}{-10} < \frac{8(q+2)}{2}$

$$\frac{33-3q}{-10} < \frac{8q+16}{2}$$

$2(33-3q) < -10(8q+16)$

$66-6q < -80q-160$

$66-6q-66 < -80q-160-66$

$-6q+80q < -80q-226+80q$

$$\frac{74q}{74} < \frac{-226}{74}$$

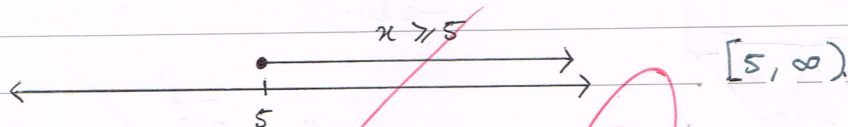
## Question 2

a.  $(-4, 1]$

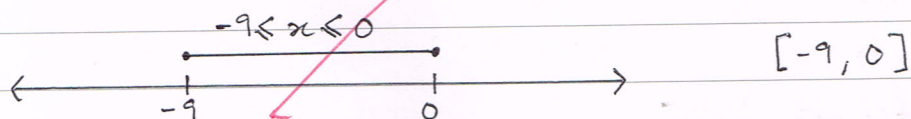
b.  $(-\infty, 0)$

## Question 3

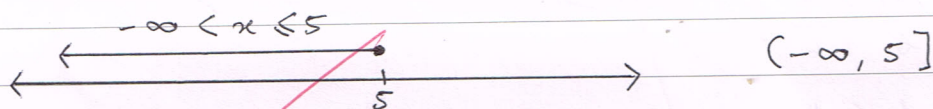
a.  $x \geq 5$



b.  $-9 \leq x \leq 0$



c.  $-\infty < x \leq 5$



d.  $x > 3$

