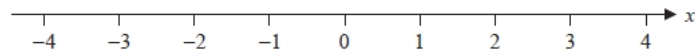


Inequalities Past Paper Questions



Q1.

Here is a number line.



(a) On this number line, show the inequality $-2 \leq x < 3$

(2)

(b) Solve $5n + 3 > 27$

.....

(2)

(Total for question = 4 marks)

Q2.

$$-2 < n \leq 3$$

n is an integer.

(a) Write down all the possible values of n .

.....

(2)

$$3x + 5 > 16$$

x is an integer.

(b) Find the smallest value of x .

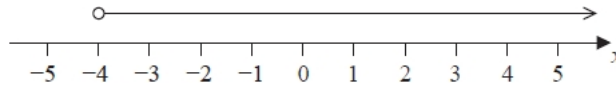
.....

(3)

(Total for Question is 5 marks)



Q3.



(a) Write down the inequality represented on the number line.

.....
(1)

(b) Solve $4y - 9 \leq 3$

.....
(2)

(c)

$$-3 \leq n < 2$$

$$-2 < m < 4$$

n and m are integers.

Given that $n = m$, write down all the possible values of n .

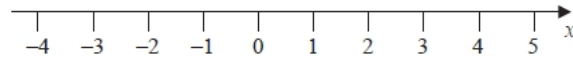
.....
(2)

(Total for question = 5 marks)



Q4.

(a) Show the inequality $x < 3$ on the number line below.



(2)

(b) Solve the inequality $4x - 7 \geq 13$

.....

(2)

(Total for question = 4 marks)

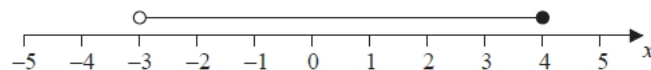
Q5.

(a) Solve the inequality $6y + 5 > 8$

.....

(2)

(b) Here is an inequality, in x , shown on a number line.



Write down the inequality.

.....

(2)

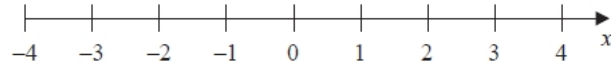
(Total for Question is 4 marks)



Q6.

(a) $x > -2$

Show this inequality on the number line.



(2)

(b) Work out the greatest integer that satisfies the inequality

$$4y - 1 < y + 7$$

.....

(3)

(Total for question = 5 marks)

Q7.

$$-5 < y \leq 0$$

y is an integer.

(a) Write down all the possible values of y .

.....

(2)

(b) Solve $6(x - 2) > 15$

.....

(2)

(Total for Question is 4 marks)



Q8.

$$-2 \leq n < 3$$

n is an integer.

(a) Write down all the possible values of n .

.....
(2)

(b) Solve $4 - x < 2x - 5$

.....
(2)
(Total for question = 4 marks)

Q9.

$$3x + 5 > 16$$

x is an integer.

Find the smallest value of x .

.....
(Total for Question is 3 marks)

Q10.

Solve the inequality $3 - \frac{1}{2}x > x$

.....
(Total for question = 2 marks)



Q11.

m is an integer such that $-2 < m \leq 3$

(a) Write down all the possible values of m .

.....

(2)

(b) Solve $7x - 9 < 3x + 4$

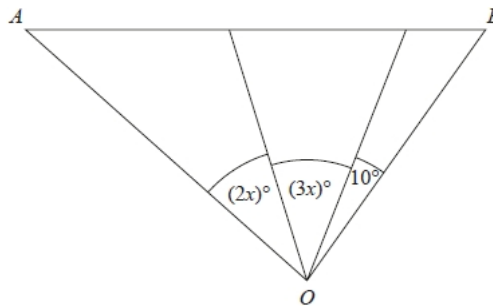
.....

(2)

(Total for Question is 4 marks)

Q12.

The diagram shows triangle AOB .



Angle AOB is **not** an obtuse angle.

Find the greatest value of x .

You must show all your working.

.....

(Total for question = 3 marks)