Non-Calculator

Q1.

(a) Factorise $x2 - 100$

_____

Answer _____

(1)

(b) Solve $7x + 6 > 1 + 2x$

_____

_____

_____

_____

Answer _____

(2)

(Total 3 marks)

Q2.

(a) Solve $4x - 7 \leq 13$

_____

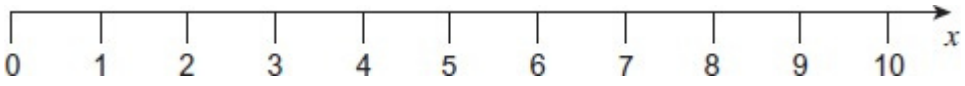
_____

_____

Answer _____

(2)

(b) Show $3 < x \leq 8$ on the number line.

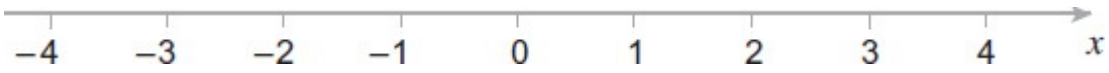


(2)

(Total 4 marks)

Q3.

(a) Show the inequality $x > -2$ on the number line.



(1)

(b) Solve the inequality $3x + 5 \leq 11$

_____

_____

_____

Answer _____

(2)

(Total 3 marks)

Q4.

(a) Solve $4(x + 3) = 17$

_____

_____

Answer x = _____

(3)

(b) Solve the inequality $2n - 1 > 5$

_____

_____

Answer _____

(2)

(Total 5 marks)

Q5.

n is an integer.

List the values of n such that $-12 < 3n \leq 6$

_____

_____

Answer _____

(Total 2 marks)

Q6.

$6 \leq 2n$ List the possible integer values of n.

_____

_____

_____

_____

Answer _____

(Total 3 marks)

Q7.

(a) Solve $5x - 11 \geq 29$

_____

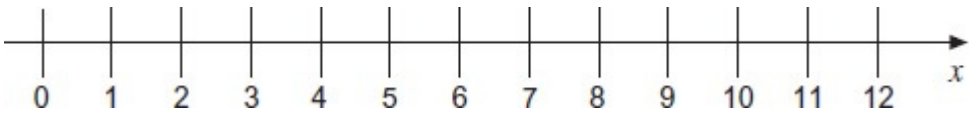
_____

Answer _____

(2)

(b) Show the solution of $3x < 12$ on the number line.

_____



(2)

(Total 4 marks)

Q8.

Solve $3x - 5 > 13$

_____

_____

Answer _____

(Total 2 marks)

Calculator

Q9.

Work out the greatest integer value of x that satisfies the inequality $3x + 10 < 1$

_____

Answer _____

(Total 2 marks)

Q10.

w is an integer such that $6 \leq 3w < 18$
x is an integer such that $-4 \leq x \leq 3$

(a) Work out all the possible integer values of w.

_____

_____

_____

Answer _____

(3)

(b) Write down the highest possible value of x^2

Answer _____

(1)

(c) Work out the lowest possible value of $w - x$

_____

_____

Answer _____

(2)

(Total 6 marks)

Q11.

Solve $5d - 3 > d + 17$

_____

_____

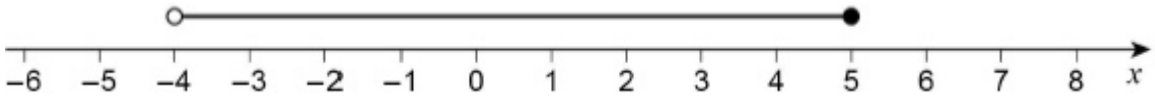
_____

Answer _____

(Total 2 marks)

Q12.

Circle the inequality shown by the diagram.



$-4 \leq x < 5$ $-4 \leq x \leq 5$ $-4 < x < 5$ $-4 < x \leq 5$

(Total 1 mark)

Q13.

Solve $20 + w < 3(w + 2)$

_____

_____

_____

_____

_____

Answer _____

(Total 3 marks)

Q14.

(a) Solve $5x - 2 < 6$

_____

_____

Answer _____

(2)

(b) List the whole number values of n that satisfy $1.5 < n \leq 6$

_____

_____

Answer _____

(2)

(Total 4 marks)