Solving Inequalities

SCAN ME

REVISE THIS TOPIC

1 Solve $x - 5 < 10$

$x < 15$

(Total for Question 1 is 1 mark)

2 Solve $y + 1 > 8$

$y > 7$

(Total for Question 2 is 1 mark)

3 Solve $3w \leq 12$

$w \leq 4$

(Total for Question 3 is 1 mark)

4 Solve $2a \geq -12$

$a \geq -6$

(Total for Question 4 is 1 mark)

5 Solve $\frac{t}{2} > 8$

$t > 16$

(Total for Question 5 is 1 mark)

6 Solve $5p - 2 < 28$

$5p < 30$

$p < 6$

(Total for Question 6 is 2 marks)

7 Solve $2q + 1 \leq 15$

$2q \leq 14$

$q \leq 7$

(Total for Question 7 is 2 marks)

8 Solve $5r - 15 > 35$

$5r > 50$

$r > 10$

(Total for Question 8 is 2 marks)

9 Solve $9c - 12 < 51$

$9c < 63$

$c < 7$

(Total for Question 9 is 2 marks)

10 Solve $11 + 5d \geq 26$

$5d \geq 15$

$d \geq 3$

(Total for Question 10 is 2 marks)

11 Solve $4(x + 3) > 20$

$4x + 12 > 20$

$4x > 8$

$x > 2$

(Total for Question 11 is 2 marks)

12 Solve $6(y - 2) \geq 18$

$6y - 12 \geqslant 18$

$6y \geqslant 30$

$y \geqslant 5$

(Total for Question 12 is 2 marks)

13 Solve $20 \leq 5w + 5$

$15 \leqslant 5w$

$3 \leqslant w$

$w \geqslant 3$

(Total for Question 13 is 2 marks)

14 Solve $\frac{3y}{4} > 6$

$3y > 24$

$y > 8$

(Total for Question 14 is 2 marks)

15 Solve $\frac{a}{3} + 2 \geq 5$

$\frac{a}{3} \geqslant 3$

$a \geqslant 9$

(Total for Question 15 is 2 marks)

16 Solve $\frac{b+2}{3} < 4$

$b+2 < 12$

$b < 10$

(Total for Question 16 is 2 marks)

17 Solve $7y + 5 < 2y + 35$

$5y+5 < 35$

$5y < 30$

$y < 6$

(Total for Question 17 is 3 marks)

18 Solve $12 < 3n < 30$

$4 < n < 10$

(Total for Question 18 is 2 marks)

19 Solve $8 \leq m - 3 \leq 10$

$11 \leqslant m \leqslant 13$

(Total for Question 19 is 2 marks)

20 Solve $1 \leq 2t - 5 \leq 11$

$6 \leqslant 2t \leqslant 16$

$3 \leqslant t \leqslant 8$

(Total for Question 20 is 3 marks)

21 Work out the largest integer x, for which $3x + 5 < 26$

$3x < 21$

$x < 7$

6

(Total for Question 21 is 3 marks)

22 Work out the largest integer x, for which $2x - 3 < 18$

$2x < 21$

$x < 10.5$

10

(Total for Question 22 is 3 marks)

23 Work out the largest integer x, for which $5x + 7 \leq 47$

$5x \leq 40$

$x \leq 8$

8

(Total for Question 23 is 3 marks)

24 Work out the smallest integer x, for which $10x - 4 > 56$

$10x > 60$

$x > 6$

7

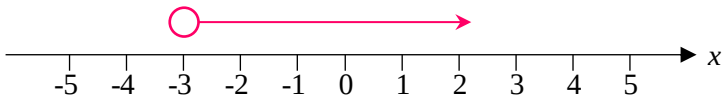
(Total for Question 24 is 3 marks)

25 (a) Solve $x + 5 > 2$

$x > -3$

(1)

(b) Represent your answer to part (a) on the number line below.



(2)

(Total for Question 25 is 3 marks)

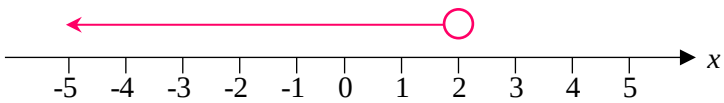
26 (a) Solve $3x + 4 < 10$

$3x < 6$

$x < 2$

(2)

(b) Represent your answer to part (a) on the number line below.



(2)

(Total for Question 26 is 4 marks)

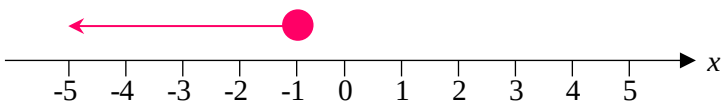
27 (a) Solve $2x - 1 \leq -3$

$2x \leqslant -2$

$x \leqslant -1$

(2)

(b) Represent your answer to part (a) on the number line below.



(2)

(Total for Question 27 is 4 marks)