Question 1: Write out the following with either an < or > symbol

(a) $8 \square 6$  
(b) $2 \square 3$  
(c) $7 \square 10$  
(d) $5 \square 0$

(e) $4 \square -1$  
(f) $-4 \square 6$  
(g) $9 \square 9.4$  
(h) $0 \square -1$

Question 2: Write down an inequality for each of the following

(a) $x$ is greater than 8  
(b) $x$ is less than 3  
(c) $x$ is less than or equal to 1  
(d) $x$ is greater than or equal to 0  
(e) $x$ is less than 7  
(f) $x$ is greater than or equal to $-2$  
(g) $x$ is less than or equal to $-10$  
(h) $x$ is greater than 5

Question 3: Write down the meaning of these inequalities

(a) $x > 6$  
(b) $x < 2$  
(c) $x \geq 1$  
(d) $x \leq 4$  
(e) $x \geq 0$  
(f) $x \leq -4$  
(g) $x < -2$  
(h) $x > 20$  
(i) $x < y$  
(j) $a \geq b$  
(k) $c > 5$  
(l) $y \leq 100$

Question 4: Write down the inequalities shown below

(a)

(b)

(c)

(d)
Inequalities
Videos 176, 177 on Corbettmaths

Question 5: Show these inequalities on a number line.

(a) \( x > 2 \)  (b) \( x < 4 \)  (c) \( x \geq 3 \)  (d) \( x \leq 5 \)
(e) \( x \geq 0 \)  (f) \( x \leq -1 \)  (g) \( x < -4 \)  (h) \( x > -5 \)
(i) \( x \geq -6 \)  (f) \( x > 0 \)  (g) \( x < -2 \)  (h) \( x > -1 \)

Question 6: Write down an inequality for each of the following

(a) \( x \) is greater than 2, but less than 5
(b) \( x \) is greater than 0, but less than 4
(c) \( x \) is greater than 1, but less than or equal to 7
(d) \( x \) is greater than \(-5\), but less than or equal to 2
(e) \( x \) is greater than or equal to \(-8\), but less than 3
(f) \( x \) is greater than or equal to 10, but less than 20
(g) \( x \) is greater than or equal to 3, but less than or equal to 6
(h) \( x \) is greater than or equal to 8, but less than or equal to 11

Question 7: Write down the meaning of these inequalities

(a) \( 3 < x < 5 \)  (b) \( 2 < x < 9 \)  (c) \( 19 \leq x < 20 \)  (d) \( 5 \leq x \leq 10 \)
(e) \( 0 < x \leq 4 \)  (f) \( -4 \leq x < 1 \)  (g) \( -8 \leq x \leq -6 \)  (h) \( 100 < x < 200 \)

Question 8: List all the integers (whole number) that satisfies each inequality

(a) \( 2 < x < 6 \)  (b) \( 5 < x < 10 \)  (c) \( 4 \leq x < 8 \)  (d) \( 12 \leq x \leq 15 \)
(e) \( -2 < x \leq 3 \)  (f) \( -5 \leq x < 1 \)  (g) \( -10 \leq x \leq -5 \)  (h) \( -4 < x < 4 \)

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Question 9: Write down the inequalities shown below

(a)  
(b)  

(c)  
(d)  

(e)  
(f)  

Apply

Question 1: The cost, c, of a TV is less than £300. Write this as an inequality.

Question 2: To go on a rollercoaster, a person’s height, h, must be over 140cm. Write this as an inequality.

Question 3: The value of a house, v, is £100,000 or more. Write this as an inequality.

Question 4: There are 20 students in a class. The number of students present on a particular day is 20 or less. Write this as an inequality.

Question 5: Write down any integers (whole numbers) that satisfies both \( x > 4 \) and \( x \leq 8 \)

Question 6: Write down any integers (whole numbers) that satisfies both \( 2 < x \leq 9 \) and \( x > 5 \)