

## Inequalities

### Workout

Question 1:

- (a)  $8 > 6$                       (b)  $2 < 3$                       (c)  $7 < 10$                       (d)  $5 > 0$   
(e)  $4 > -1$                       (f)  $-4 < 6$                       (g)  $9 < 9.4$                       (h)  $0 > -1$

Question 2:

- (a)  $x > 8$                       (b)  $x < 3$                       (c)  $x \leq 1$                       (d)  $x \geq 0$   
(e)  $x < 7$                       (f)  $x \geq -2$                       (g)  $x \leq -10$                       (h)  $x > 5$

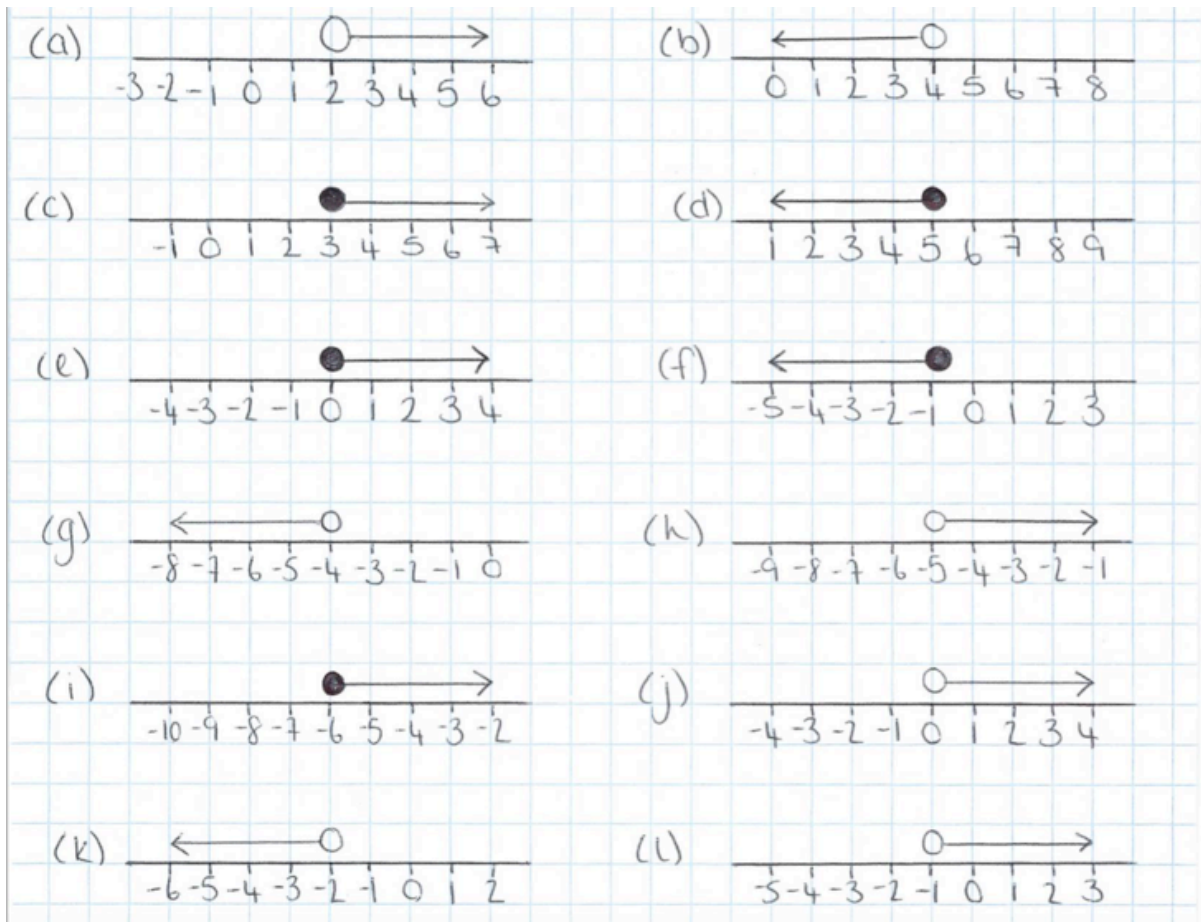
Question 3:

- (a) x is greater than 6                      (b) x is less than 2  
(c) x is greater than or equal to 1                      (d) x is less than or equal to 4  
(e) x is greater than or equal to 0                      (f) x is less than or equal to -4  
(g) x is less than -2                      (h) x is greater than 20  
(i) x is less than y                      (j) a is greater than or equal to b  
(k) c is greater than 5                      (l) y is less than or equal to 100

Question 4:

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

Question 5:



Question 6:

- (a)  $2 < x < 5$       (b)  $0 < x < 4$       (c)  $1 < x \leq 7$       (d)  $-5 < x \leq 2$   
 (e)  $-8 \leq x < 3$       (f)  $10 \leq x < 20$       (g)  $3 \leq x \leq 6$       (h)  $8 \leq x \leq 11$

Question 7:

- (a)  $x$  is greater than 3 but less than 5  
 (b)  $x$  is greater than 2, but less than 9  
 (c)  $x$  is greater than or equal to 19, but less than 20  
 (d)  $x$  is greater than or equal to 5, but less than or equal to 10  
 (e)  $x$  is greater than 0, but less than or equal to 4  
 (f)  $x$  is greater than or equal to -4, but less than 1

(g)  $x$  is greater than or equal to  $-8$ , but less than or equal to  $-6$

(h)  $x$  is greater than  $100$ , but less than  $200$

Question 8:

(a) 3, 4, 5

(b) 6, 7, 8, 9

(c) 4, 5, 6, 7

(d) 12, 13, 14, 15

(e)  $-1, 0, 1, 2, 3$

(f)  $-5, -4, -3, -2, -1, 0$

(g)  $-10, -9, -8, -7, -6, -5$

(h)  $-3, -2, -1, 0, 1, 2, 3$

Question 9:

(a)  $1 < x < 4$

(b)  $0 < x < 5$

(c)  $0 < x \leq 3$

(d)  $-3 \leq x \leq 4$

(e)  $-5 \leq x < -1$

(f)  $-3 < x \leq 4$

### Apply

Question 1:  $c < \text{£}300$

Question 2:  $h > 140\text{cm}$

Question 3:  $v \geq \text{£}100,000$

Question 4:  $x \leq 20$

Question 5: 5, 6, 7, 8

Question 6: 6, 7, 8, 9