

---

## Inequalities - Past Edexcel Exam Questions

---

1. Find the set of values of  $x$  for which

(a)  $3(2x + 1) > 5 - 2x$ , [2]

(b)  $2x^2 - 7x + 3 > 0$ , [4]

(c) **both**  $3(2x + 1) > 5 - 2x$  **and**  $2x^2 - 7x + 3 > 0$ . [2]

**Question 6 - May 2005**

---

2. Find the set of values of  $x$  for which

$$x^2 - 7x - 18 > 0$$

[4]

**Question 2 - May 2006**

---

3. Find the set of values of  $x$  for which

(a)  $4x - 3 > 7 - x$ , [2]

(b)  $2x^2 - 5x - 12 < 0$ , [4]

(c) **both**  $4x - 3 > 7 - x$  **and**  $2x^2 - 5x - 12 < 0$ . [1]

**Question 4 - Jun 2009**

---

4. Find the set of values of  $x$  for which

(a)  $3(x - 2) < 8 - 2x$ , [2]

(b)  $(2x - 7)(1 + x) < 0$ , [3]

(c) **both**  $3(x - 2) < 8 - 2x$  **and**  $(2x - 7)(1 + x) < 0$ . [1]

**Question 3 - May 2010**

---

5. Find the set of values of  $x$  for which

(a)  $4x - 5 > 15 - x$ , [2]

(b)  $x(x - 4) > 12$ . [4]

**Question 3 - Jan 2012**

---

6. Find the set of values of  $x$  for which

(a)  $2(3x + 4) > 1 - x$ , [2]

(b)  $3x^2 + 8x - 3 < 0$ . [4]

**Question 5 - May 2013**

---

7. Find the set of values of  $x$  for which

(a)  $3x - 7 > 3 - x$  [2]

(b)  $x^2 - 9x \leq 36$  [4]

(c) **both**  $3x - 7 > 3 - x$  **and**  $x^2 - 9x \leq 36$ . [1]

**Question 3 - May 2014**

---

## Solutions

1. (a)  $x > \frac{1}{4}$   
(b)  $x < \frac{1}{2}, x > 3$   
(c)  $\frac{1}{4} < x < \frac{1}{2}, x < 3$
2.  $x < -2, x > 9$
3. (a)  $x > 2$   
(b)  $-\frac{3}{2}x < 4$   
(c)  $2 < x < 4$
4. (a)  $x < \frac{14}{5}$   
(b)  $-1 < x < \frac{7}{2}$   
(c)  $-1 < x < \frac{14}{5}$
5. (a)  $x > 4$   
(b)  $x > 6, x < -2$
6. (a)  $x > -1$   
(b)  $-3 < x < \frac{1}{3}$
7. (a)  $x > \frac{5}{2}$   
(b)  $-3 \leq x \leq 12$   
(c)  $-\frac{5}{2} < x \leq 12$