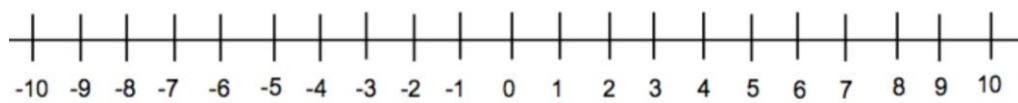




## Inequalities Exam Practice

Q1. Shade the inequality  $n > -3$  on the number line below.



Answer: \_\_\_\_\_  
(2 marks)

Q2. Write down the inequality illustrated by the number line below:



Answer: \_\_\_\_\_  
(2 marks)



Q3. Shade the inequality  $n < 7$  on the number line below.



Answer: \_\_\_\_\_  
(2 marks)

Q4. Write down the inequality illustrated by the number line below:



Answer: \_\_\_\_\_  
(2 marks)



Q5. Solve the inequality,  $2n > -8$

Answer: \_\_\_\_\_  
(2 marks)

Q6. Solve the inequality,  $6n - 19 \leq -7$

Answer: \_\_\_\_\_  
(2 marks)



Q7. Solve the inequality,  $5 - 4x > -43$

Answer: \_\_\_\_\_  
(2 marks)

Q8. Solve the inequality,  $5x - 13 < 23 - x$

Answer: \_\_\_\_\_  
(3 marks)

Q9. Solve the inequality,  $5(3x - 4) < 11x - 18$

Answer: \_\_\_\_\_  
(3 marks)



Q10. Solve the inequality,  $\frac{x}{2} - 10 < -6$

Answer: \_\_\_\_\_  
(2 marks)

Q11. Solve the inequality,  $-54 < \frac{4x}{3} - 10 \leq 14$

Answer: \_\_\_\_\_  
(3 marks)

Q12. Find all the integer solutions to the inequality:  $-70 \leq 2x + 9 < 27$

Answer: \_\_\_\_\_  
(4 marks)



Q13. Given  $x > 0$ , find all the integer solutions to the inequality:

$$-4 < \frac{20}{x} > 7$$

Answer: \_\_\_\_\_  
(3 marks)

**Problem Questions:**

Q14. Mike sells fruit cakes on a market stall. On each cake he sells, he makes a profit of 70p. His daily stall rent is £8. His daily aim is to make at least £25.

a) Write an inequality to represent this information

Answer: \_\_\_\_\_  
(3 marks)

b) Work out the least amount of cakes which makes need to sell to achieve his daily aim.

Answer: \_\_\_\_\_  
(2 marks)



Q15. Simone needs to buy some pencils and a ruler for school. She can spend no more than £8. The ruler costs £1.20 and the pencils cost 25p each. Let the number of pencils Simone buys be  $p$ .

a) Write an inequality for this situation.

Answer: \_\_\_\_\_  
(2 marks)

b) Solve your inequality in part a) to find the maximum number of pencils she can buy.

Answer: \_\_\_\_\_  
(2 marks)



Q16. For her holiday, Jane must have at least enough money to pay for 7 nights in a hotel and the flights. The hotel costs £65 per night and the flights cost £310. To save the money she works in a hospital where she earns £18 an hour for day shifts and £24 for night shifts. One third of her hours are night shifts. Let the number of hours Jane works be  $w$ .

a) Write an inequality for this situation, simplifying your answer.

Answer: \_\_\_\_\_  
(3 marks)

b) Find the least number of hours Jane will have to work to save the money.

Answer: \_\_\_\_\_  
(2 marks)