



ACHIEVE ACADEMY

GCSE Maths — Foundation Tier

Inequalities · Practice Booklet

NAME: _____

CLASS: _____

DATE: _____

☐ Developing

☒ Secure

☐ Greater Depth

Answer every question in the working space provided. Method marks are available for correct working even if the final answer is wrong. Check the time allowed with your tutor before you start.

Inequalities

Total marks available: 79

● Inequalities

Q1

[2 marks]

Write down the inequality shown on the number line.
Use x for the variable.



Q2

[2 marks]

x is an integer.
Write down all the possible values of x if $-3 \leq x \leq 0$.

Q3

[2 marks]

Write down the inequality shown on the number line.
Use x for the variable.



Q4

[2 marks]

Solve $n + 4 < 11$

Q5

[2 marks]

Write down the inequality shown on the number line.
Use x for the variable.



Q6

[2 marks]

n is an integer.
Write down all the possible values of n if $-1 < n \leq 3$.

Q7

[2 marks]

Write down the inequality shown on the number line.
Use x for the variable.



Q8

[2 marks]

Solve $y - 4 \geq 2$

Q9

[2 marks]

x is an integer.

Write down all the possible values of x if $1 \leq x \leq 7$.

Q10

[2 marks]

Solve $x + 1 \geq -2$

Q11

[2 marks]

Solve $5y + 1 \geq 16$

Q12

[3 marks]

(a) Solve $3x - 2 > 7$.

(b) Show your solution to part (a) on the number line.



Q13

[3 marks]

(a) Solve $3x - 4 < 11$.

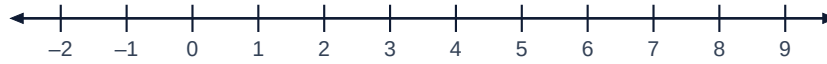
(b) Show your solution to part (a) on the number line.



Q14

[3 marks]

- (a) Show the inequality $1 \leq x < 6$ on the number line.
- (b) x is an integer. Write down all the possible values of x .



Q15

[2 marks]

Solve $5y + 9 < 49$

Q16

[3 marks]

- (a) Show the inequality $0 \leq x \leq 3$ on the number line.
(b) x is an integer. Write down all the possible values of x .



Q17

[3 marks]

- (a) Solve $4x - 1 > 3$.
(b) Show your solution to part (a) on the number line.



Q18

[3 marks]

(a) Solve $3x + 2 \geq 8$.

(b) Show your solution to part (a) on the number line.



A large rectangular area with a dashed border, intended for showing the solution to part (a) on the number line.

Q19

[2 marks]

Solve $3n - 5 \geq 13$

A large rectangular area with a dashed border, intended for showing the solution to the inequality.

Q20

[3 marks]

- (a) Show the inequality $-4 < x < -1$ on the number line.
(b) x is an integer. Write down all the possible values of x .



A large dashed rectangular box for writing the answer to question 20.

Q21

[3 marks]

Solve $4 \leq 4x - 4 \leq 12$

A large dashed rectangular box for writing the answer to question 21.

Q22

[4 marks]

(a) Solve $-4 < 3x - 1 < 2$.

(b) Show your solution to part (a) on the number line.



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Q23

[3 marks]

Solve $-9 < 5x + 1 < 11$

A large rectangular area with a dashed border, intended for showing the solution to the inequality.

Q24

[3 marks]

Solve $-1 - 4x < -21$

Q25

[3 marks]

Solve $5 - 5x \geq 5$

Q26

[4 marks]

(a) Solve $-1 < 4x - 5 < 15$.

(b) Show your solution to part (a) on the number line.



A large rectangular area with a dashed border, intended for showing the solution to part (a) on the number line.

Q27

[3 marks]

Solve $-17 < 3x - 5 \leq -2$

A large rectangular area with a dashed border, intended for showing the solution to the inequality.

Q28

[3 marks]

A taxi charges a £7 fixed fee plus £2 per mile.

Tia has £16 to spend. She travels m miles, where m is a whole number.

(a) Write down an inequality in m .

(b) Find the greatest number of miles Tia can travel.

Q29

[3 marks]

Solve $6 - 5x \leq 1$

Q30

[3 marks]

A taxi charges a £4 fixed fee plus £3 per mile.

Tia has £29 to spend. She travels m miles, where m is a whole number.

- (a) Write down an inequality in m .
- (b) Find the greatest number of miles Tia can travel.