

Inequalities

How to ...

$$-3 < n \leq 1$$

n is an integer

a) write down all the possible values of n .

Draw a number line to help



b) Solve the inequality

$$3p - 7 > 11$$

inequality equations are just like normal equations with a different symbol here

$$3p - 7 > 11$$

$$\frac{3p}{3} > \frac{18}{3}$$

$$\underline{\underline{p > 6}}$$

(2)

You must include the inequality in your final answer

Now have a go yourself ...

MUST:

write down the correct inequality sign between each pairs of numbers

- a) 3 ... 5 b) 2 ... 4 c) 6 ... 4
 d) 3.2 ... 3.5 e) 2.1 ... 2.2 f) 7 ... 4.1
 g) -3 ... -5 h) -7 ... -6 i) -2.2 ... -2.3

SHOULD: write down the possible integer values for x

- a) $-1 \leq x \leq 5$ b) $1 \leq x \leq 5$ c) $-2 \leq x \leq 3$
 d) $3 \leq x < 7$ e) $-1 < x \leq 3$ f) $-2 \leq x < 1$
 g) $-3 < x < 3$ h) $-1 \leq x < 4$ i) $-3 \leq x < 3$

COULD: - solve the following

- a) $5x \geq 15$ b) $6x \leq 30$ c) $4x \geq 16$
 d) $x + 4 > 11$ e) $x - 4 < 11$ f) $x + 8 > 13$
 g) $x - 5 > 2$ h) $5x + 2 \geq 12$ i) $2x + 4 > 16$
 j) $5x - 4 < 36$ k) $3x + 4 \leq 7$ l) $7x + 7 \geq 77$

SUPERSTAR! - have a go at these

- a) $7x - 5 \leq 22 - 2x$ b) $3(2x - 1) > 2x - 15$
 c) $x + 2 \leq 5x - 7$ d) $7(x - 5) \geq 2x$

Exam Questions

- List all the possible integer values of n such that
$$-2 \leq n < 3$$
- $$-2 < x \leq 1$$

 x is an integer. Write down all the possible values of x .
- Solve the inequality $6x < 7 + 4x$
- Solve the inequality $3x + 2 > -7$
- Solve the inequality $5x - 7 < 2x - 1$
- Solve the inequality $4p - 8 < 7 - p$

Ready to be marked ?

Checklist



Answers checked

Inequality symbol included in answer
(where applicable)



Keywords



Things to remember ...



What went well ...

Teacher comment ..