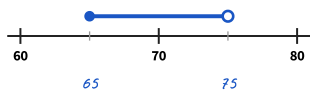


Error Intervals

ANSWERS

1

$x = 70$ correct to the nearest 10.
Write down the error interval for x .



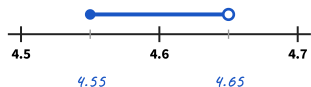
● included ○ not included

half of 10 is 5

Answer $65 \leq x < 75$

2

$y = 4.6$ correct to 1 decimal place.
Write down the error interval for y .

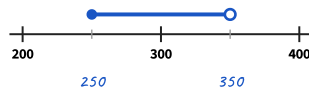


half of 0.1 is 0.05

Answer $4.55 \leq y < 4.65$

3

$a = 300$ correct to the nearest 100.
Write down the error interval for a .

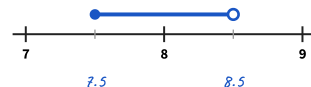


half of 100 is 50

Answer $250 \leq a < 350$

4

$m = 8$ correct to the nearest whole number.
Write down the error interval for m .

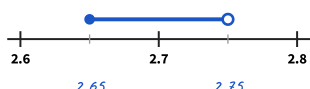


half of 1 is 0.5

Answer $7.5 \leq m < 8.5$

5

$t = 2.7$ correct to 1 decimal place.
Write down the error interval for t .

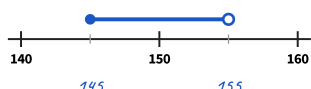


half of 0.1 is 0.05

Answer $2.65 \leq t < 2.75$

6

$h = 150$ correct to the nearest 10.
Write down the error interval for h .



half of 10 is 5

Answer $145 \leq h < 155$

7

A number is 40 when rounded to the nearest 10. What is the smallest the number could be?

halfway between 30 and 40

Answer 35

8

A pencil is 14 cm long to the nearest centimetre. Jo says it could be exactly 14.5 cm. Is she right? Explain.

14.5 rounds up to 15, so it must be less than 14.5

Answer No

Error Intervals further practice

ANSWERS

9

$y = 3.8$ correct to 1 decimal place.
Write down the error interval for y .

half of 0.1 is 0.05

Answer $3.75 \leq y < 3.85$

10

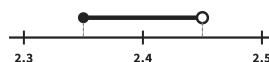
The number of people living in a town is 46 000, correct to the nearest 1000.
Write down the error interval for the number of people, P .

half of 1000 is 500

Answer $45\,500 \leq P < 46\,500$

11

The number line shows the error interval for t .
Write it using inequalities.



filled circle: $\leq$ open circle: $<$

Answer $2.35 \leq t < 2.45$

12

The width of a bolt is 0.68 cm, correct to 2 decimal places. Write down the error interval for the width, w .

half of 0.01 is 0.005

Answer $0.675 \leq w < 0.685$

13

$m = 250$ correct to the nearest 10.
Which of these could be the value of m ?

244 245 249.9 254.9 255

$245 \leq m < 255$

Answer 245, 249.9, 254.9

14

A plank of wood is 1.6 m long, correct to the nearest 10 cm. Write down the error interval for its length, L , in centimetres.

1.6 m = 160 cm, half of 10 is 5

Answer $155 \leq L < 165$

15

The error interval for h is $1250 \leq h < 1350$. What was h rounded to, and to what accuracy?

Rounded to 1300

Accuracy nearest 100

16

A number is 7, correct to the nearest whole number. Another number is 8, correct to the nearest whole number. Jo says 7.5 could be either number. Is Jo right? Explain.

7.5 rounds up to 8, not down to 7

Answer No, only the one that is 8