GCSE Maths: Place value and ordering decimals (Higher): answers

GCSE Maths - Decimals, Rounding and Estimation - Higher - Lesson 4.1

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at **websink.site/gcse/maths/ch04-decimals-rounding-estimation/higher/place-value-and-ordering-decimals/**

Exercise 4A Place value and ordering decimals Non-calculator

1 Write down the value of the highlighted digit in each number.

(a) 4.**7**

Answer: 0.7

(b) 0.0**7**2

Answer: 0.07

(c) **1**7.3

Answer: 10

(d) 6.15**7**

Answer: 0.007

(e) **7**.04

Answer: 7

(f) 0.91**7**

Answer: 0.007

2 Write down the missing symbol, <, > or =, between each pair of numbers.

(a) 0.7 ? 0.07

Answer: 0.7 > 0.07

(b) 0.45 ? 0.5

Answer: 0.45 < 0.5

(c) 3.09 ? 3.9

Answer: 3.09 < 3.9

(d) 12.50 ? 12.5

Answer: 12.50 = 12.5

(e) 0.612 ? 0.62

Answer: 0.612 < 0.62

(f) 5.08 ? 5.008

Answer: 5.08 > 5.008

3 Write each set of numbers in order, starting with the **smallest**.

(a) 0.4, 0.04, 0.44

Answer: 0.04, 0.4, 0.44

(b) 2.5, 2.05, 2.55, 2.505

Answer: 2.05, 2.5, 2.505, 2.55

(c) 0.81, 0.8, 0.081, 0.18

Answer: 0.081, 0.18, 0.8, 0.81

4 Write the number that has 5 tens, 3 units, 4 tenths and 7 thousandths.

Answer: 53.407

5 Work out

(a) 3.8 × 10

Answer: 38

(b) 0.46 × 100

Answer: 46

(c) 27.5 × 1000

Answer: 27 500

(d) 64 ÷ 10

Answer: 6.4

(e) 9.1 ÷ 100

Answer: 0.091

(f) 0.7 ÷ 10

Answer: 0.07

6 Write down the decimal shown by each arrow on this number line, which goes from 2 to 3.

(a) arrow P

Answer: 2.4

(b) arrow Q

Answer: 2.9

7 Fill in the missing number.

(a) 5.2 × ? = 520

Answer: 100

(b) 0.083 × ? = 8.3

Answer: 100

(c) 4500 ÷ ? = 4.5

Answer: 1000

8 Four swimmers have these times, in seconds, in a 50 m race: 28.4, 28.04, 28.44, 28.39. Write down the **fastest** time. (The smallest time is the fastest.)

Answer: 28.04

9 Write down a decimal that lies between 2.3 and 2.4.

Answer: 2.35

10 A box of 100 pencils costs £24. Each pencil costs £24 ÷ 100. How much is that for one pencil?

Answer: £0.24

11 A paper clip is 3.2 cm long. Work out the length of a chain of 10 000 paper clips, in **metres**. (1 m = 100 cm.)

Answer: 320 m

12 Ali says: "0.45 is bigger than 0.5 because 45 is bigger than 5." Is Ali right? Give a reason.

Answer: No, 0.5 is bigger

13 Jess says: "To multiply a number by 10 you just add a zero on the end." Show with an example that Jess is wrong.

Answer: 2.5 × 10 = 25, not 2.50

14 Fiona has three number cards, 1, 5 and 9, and a decimal point card. She uses **all four cards** to make a number. The decimal point cannot go at the start or at the end. Write down all the different numbers she can make, in order, starting with the smallest. How many are there?

Answer: 1.59, 1.95, 5.19, 5.91, 9.15, 9.51, 15.9, 19.5, 51.9, 59.1, 91.5, 95.1 (12 numbers)

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