Comparing Ordering Numbers

KS3 Maths · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Order –3, 2, –7, 0, –1 from smallest to largest

Step 1 · Negatives come first; the one furthest from zero is smallest

–7, then –3, then –1

Step 2 · Zero comes next, then the positive numbers

0, 2

Answer: –7, –3, –1, 0, 2

Check: Each number is to the right of the one before it on a number line ✓

2. Now try one with the steps

Which is bigger: 0.35 or 3/8?

Step 1 · Change the fraction to a decimal

Step 2 · Line up the decimals

Step 3 · Compare the hundredths: 5 < 7

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. Which is smaller: –8 or –5? [1]

2. Write the symbol <, > or = that makes this true: 0.7 ☐ 0.69 [1]

3. Write in order, smallest first: 4, –2, 0, –9, 7 [1]

4. Which is larger: 0.4 or 3/8? [1]

5. Which is larger: 7/10 or 72%? [1]

6. Is the statement 3/4 ≠ 0.75 true or false? [1]

7. Which is smaller: −0.3 or −1/4? [1]

8. Write in order, smallest first: 0.63, 5/8, 61%, 2/3 [2]

9. Write in order, largest first: 2/5, 3/7, 0.41 [2]

10. Find the number exactly halfway between −2.5 and 1.5. [2]

11. Which is bigger: 5/12 or 3/7? [2]

12. At midnight it was −7.5 °C in Oslo, −0.5 °C in Leeds, −12 °C in Moscow and 1 °C in Cardiff. How many degrees warmer was Cardiff than the coldest city? [2]

13. Write in order, smallest first: −1.5, −1.05, −1 1/4, −1.55 [2]

14. How many whole numbers n satisfy −4 ≤ n < 3? [2]

4. Before you hand it in

Saying −8 > −5 because 8 is bigger than 5
On a number line −8 is further left, so −8 < −5. Owing £8 is worse than owing £5.

Saying 0.25 > 0.3 because 25 is bigger than 3
Line up the decimal points: 0.25 and 0.30. Compare tenths first: 2 < 3, so 0.25 < 0.3.

Saying 1/8 > 1/6 because 8 is bigger than 6

Sharing a pizza between 8 gives smaller slices than sharing it between 6, so 1/8 < 1/6. Check with decimals: 0.125 < 0.166…

Reading x ≤ 5 as 'x is less than 5' and leaving 5 out

The extra line means 'or equal to', so 5 is included. x < 5 leaves 5 out; x ≤ 5 lets x be 5.