

Day 1 Rounding Decimals Reasoning

Activity 1

Which number am I?

Use the clues below to work out which of the following numbers I am thinking of.

6.81	7.38	7.4	7.22	7.48
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- When you round to the nearest whole number, this number rounds to 7. This clue is not helpful because they all round to 7!
- The number is less than $\frac{74}{10}$. This is equivalent to 7.4 which means that 7.4 and 7.48 can be eliminated.
- The number's hundredths digit is greater than its tenths digit.

Activity 2

For this challenge you will need a die (or type random number generator into Google and set it from 1 to 9). Roll the die three times and record the results to make a number with 2 decimal places.

_____ . _____ **E.G 3.62**

1. Round your number to the nearest whole number and the nearest tenth e.g 4 and 3.6
2. Write three other numbers that would round to the same whole number. e.g 3.78, 3.93, 4.12
3. Write three numbers that round to the same whole number and the same tenth as your original number. e.g 3.60, 3.61, 3.59

Answers will be different for each child but the above are examples.

Day 2 Order and Compare Decimals Reasoning

Activity 1

These are the top 8 times in the men's 100m at the London 2012 Olympics in seconds.

Richard Thompson	9.98	Usain Bolt	9.63
Yohan Blake	9.75	Ryan Bailey	9.88
Churandy Martina	9.84	Justin Gatlin	9.79
Asfa Powell	11.99	Tyson Gay	9.80

1. Who won the gold, silver and bronze medals? How did you decide? Gold- Usain Bolt, Silver- Yohan Blake, Bronze- Justin Gatlin I know this because Usain Bolt had the fastest time, Yohan Blake the second fastest and Justin Gatlin the third fastest. Most of the runners had a time between 9 and 10 seconds so I had to use the tenths column to see that Usain Bolt was the quickest and then the hundredths column to see who was second and first.
2. If recorded to one decimal place, which runners would have had the same times? Yohan Blake, Justin Gatlin and Tyson Gay (9.8 seconds)
3. What was the difference between the fastest and slowest time? 2.36 seconds

Day 3 Understand percentages Reasoning

James thinks that if he has 200 sweets and 40 of them are blue, 20% of them are blue. Is he correct? Explain your answer. True, $\frac{40}{200} = \frac{20}{100}$ which is 20%. (other explanations are possible)

Lucy thinks that she has 300% because she has 300 stickers. Is she correct? Explain your answers. She is incorrect because 300 is all of stickers which is 100%.

Day 4 Percentages as Fractions and Decimals

For these activities you will need a die (or type random number generator into Google and set it from 1 to 9).

Activity 1

Roll the dice twice and use the results to make a decimal number with 0 ones and 2 decimal places.

0. _____

1. Write your decimal as a percentage.
2. Write your decimal as a fraction.

Repeat 3 times. Each child will have different answers.

Activity 2

Roll the dice 5 times and choose two of your numbers to make a decimal with 0, one, and 2 decimal places that is as close as possible to 100%.

0. _____

What would be best digit to put into the tenths column? The largest digit should go into the tenths column as that will be closest to 1 whole.