

CHECKING ORDER OF MAGNITUDE

Name: _____

Assessment Criteria: Apply inverse operations and approximate to check answers to problems are of the correct magnitude.

1. Decide whether each of these approximations is correct. Show the ones you think are correct by circling them.

$$3.8 \times 7.1 \approx 40$$

$$41 \div 7.7 \approx 5$$

$$0.93 \times 8.11 \approx 8$$

$$48\% \text{ of } 71.23 \approx 35$$

$$29 \times 38 \approx 120$$

$$68 \div 32 \approx 100$$

2. Choose two of the approximations you checked in question 1. Show how you worked out whether or not the approximation was correct.

A: _____

B: _____

3. Carrie uses a calculator to work out $34.2 \times 62.5 = 2137.5$, but she is concerned that she might have mis-pressed a button while working this out. She has 2137.5 on her screen. What is the quickest way for her to check if she is correct?

4. Circle the correct solution for each of the following calculations, writing down the estimation that helped you reach a conclusion.

$1.9^2:$

36.1

3.61

3.061

because

$63 \div 1.1:$

57.2727...

69.333...

5.72727...

because

$\sqrt{27}:$

5.196...

8.5

729

because

Overall, I think my success level is:

Low High

Q	ORDER OF MAGNITUDE	☺	☹
	I can identify and apply the inverse operation(s) to check the answer to a calculation		
	I can choose and use an appropriate approximation to check the answer to a calculation		
	I can check the order of magnitude of a solution		
	<i>I can check results, considering whether these are reasonable</i>		

I need to practise ...