Maths Mastery

Place Value Number Problems
Challenge Cards



1. Match the statements to the numbers, explaining your choices:

My number has 3 hundreds.

My number is thirty one thousand to the nearest ten.

My number is thirty thousand to the nearest ten thousand.

My number is twenty eight and a half thousand to the nearest five hundred.

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Place Value Number Problems

2. Order these sets of numbers from smallest to largest:

9.9 9.09 9.099 9.99

6.56×10 665 1 tenth of 6556

-5.5 -5.05 -5.55 -5.055

0.12 13÷100 0.011

Place Value Number Problems

3. Calculate 6231+2787 by rounding each number to the nearest:

1000

100

50

10

Which gives the most accurate and least accurate answer?

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Place Value Number Problems

4. 2700 people visit a cinema in one day. About one third of the visitors are children. The rest are adults. The cost of the tickets are:

Adults £9.80 Children £5.40

Use rounding to estimate how much money the cinema took on that day.



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Place Value Number Problems

5. Sheffield's Ponds Forge has the deepest diving pool in Europe. The pool is 5.85m deep.

A diver jumps from the 10m board and falls 14.67 m in total.

A diver jumps from the 3m springboard and comes within 1.56m of the bottom of the pool.

Which diver comes closer to the bottom of the pool?



Place Value and Number Problems

1. My number has exactly 300 hundreds in it. 29 301

My number is thirty one thousand to the nearest ten. 31 004

My number is thirty thousand to the nearest ten thousand. 30 092

My number is twenty eight and a half thousand to the nearest five hundred. 28 672

2. 9.09, 9.099, 9.9, 9.99

6.56×10. 1 tenth of 6556, 665

-5.55, -5.5, -5.055, -5.05

0.011. 0.12. 13÷100

3.6000 + 3000 = 9000

6200 + 2800 = 9000

6250 + 2800 = 9050

6230 + 2790 = 9020

Rounding to 10 gives the most accurate answer. Rounding 1000 and 100 gives the least accurate answer.

4. Adults $1800 \times £10 = £18 000$, Children $900 \times £5 = £4500$, Total = £22 500, Other similar answers are possible.

5. The diver from the 10m board (1.18m from bottom).



