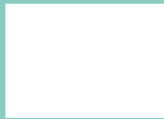


Year 6:

# Maths Mastery

## Place Value Number Problems



Year 6: Place Value Number Problems

Mastery Challenge Cards

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

My number has 3 hundreds.

28 672

My number is thirty one thousand to the nearest ten.

29 301

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.

31 004

Year 6: Place Value Number Problems

Mastery Challenge Cards

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

9.9

9.09

9.099

9.99

$6.56 \times 10$

665

1 tenth of 6556

-5.5

-5.05

-5.55

-5.055

0.12

$13 \div 100$

0.011

Year 6: Place Value Number Problems

Mastery Challenge Cards

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

1000

100

50

10

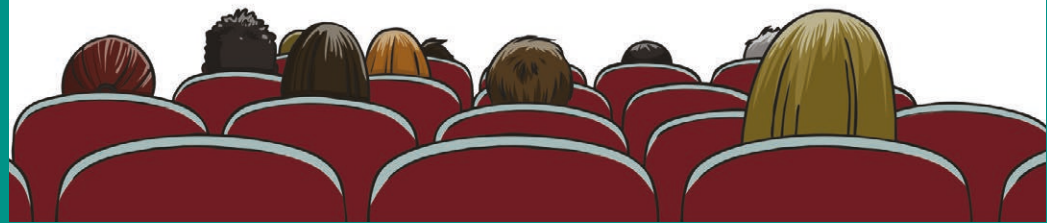
Which gives the most accurate and least accurate answer?

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.



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

$6.56 \times 10$ , 1 tenth of 6556, 665

-5.55, -5.5, -5.055, -5.05

0.011, 0.12,  $13 \div 100$

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  $900 \times £5 = £4\ 500$ ,  
Total = £22 500, Other similar answers are possible.

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