



Multiplying and dividing by 10, and rounding – John and Felicity

Objectives

The relevant framework objectives are:

- multiply and divide any positive integer up to 10,000 by 10 or 100 and understand the effect (key objective);
- round a number with one or two decimal places to the nearest integer (key objective).

Activity description

The pupils in this class did written exercises to check that they could multiply and divide by 10, and round decimal numbers to the nearest integer.

Commentary

John's piece of work shows that he can multiply and divide by 10. He is not confused by zeros in the tens column. To develop further within this level, John needs to demonstrate that he can also multiply and divide integers by 100. To extend into level 5 he will need to be taught how to multiply and divide decimals by 10, 100 and 1000.

Felicity's work demonstrates that she can round a decimal number to the nearest whole number. Her next step is to learn how to round to the nearest tenth.

Both pieces of work are typical of performance at level 4 in this aspect of Ma2.



Items of work

John's work on multiplying and dividing by 10

Multiplying and Dividing by 10

$$36 \times 10 = 360$$

$$247 \times 10 = 2470$$

$$59 \times 10 = 590$$

$$830 \times 10 = 8300$$

$$462 \times 10 = 4620$$

$$705 \times 10 = 7050$$

$$640 \div 10 = 64$$

$$2870 \div 10 = 287$$

$$290 \div 10 = 29$$

$$4500 \div 10 = 450$$

$$470 \div 10 = 47$$

$$1040 \div 10 = 104$$

$$295 \div 10 = 29 \text{ r } 5$$

$$482 \div 10 = 48 \text{ r } 2$$

$$463 \div 10 = 46 \text{ r } 3$$

$$649 \div 10 = 64 \text{ r } 9$$

$$36 \times 10 = 360$$

$$49 \times 10 = 490$$

$$360 \div 10 = 36$$

$$490 \div 10 = 49$$

$$56 \times 10 \div \underline{10} = 56$$

$$29 \times \underline{10} \div 10 = 29$$



Felicity's work on rounding decimal numbers to the nearest integer

Rounding

1. Round to the nearest whole number

29.8 30

32.74 33

162.34 162

2. What is £4.38 to the nearest pound? £4.00

3. What is 5.93 litres to the nearest litre? 6 litres

4. At a school sports day, the times of six runners for 100 metres were given (in seconds) as:

15.92	16.47	16.68	16.11	15.27	16.81
16.00	16.00	17.00	16.00	15.00	17.00

What would these times be if given to the nearest second?

How would this effect the result of the race?

You would have 1 winner, 2 second, 3 last.
It wouldn't be a fair result because
some people ran faster than others.



About this entry

Subject: mathematics

Year: 5

Key stage: 2

NC programme of study: Ma2p2c, Ma2p2j

Attainment target: Ma2

Evidence for: level 4

Framework for teaching mathematics – objectives:

- Multiply and divide any positive integer up to 10,000 by 10 or 100 and understand the effect.
- Round a number with one or two decimal places to the nearest integer.