Dividing by 10

Remember **23** can be written as **23·0**.

We can find 23 ÷ 10 like this:

Share the units. 23 shared equally among 10 gives 2 each.

$$10\overline{)23\cdot0} \quad 2$$

This leaves 3 units. Exchange for tenths.

Share the tenths. 30 shared equally among 10 gives 3 each.

So 23 ÷ 10 = 2·3

$$10\overline{)23\cdot^{3}0} \quad 2\cdot3$$

1 Copy and complete: **(a)** $10\overline{)47\cdot^{7}0}$ $\quad 4\cdot$ **(b)** $10\overline{)56\cdot0}$ **(c)** $10\overline{)91\cdot0}$ **(d)** $10\overline{)68\cdot0}$

2 Find the answer to these in decimal form:

(a) 28 ÷ 10 **(b)** 32 ÷ 10 **(c)** 65 ÷ 10 **(d)** 74 ÷ 10 **(e)** 99 ÷ 10 **(f)** 103 ÷ 10

Look at these divisions by 10:

$$10\overline{)46\cdot0} \quad 4\cdot6 \qquad 10\overline{)75\cdot0} \quad 7\cdot5 \qquad 10\overline{)164\cdot0} \quad 16\cdot4 \qquad 10\overline{)127\cdot0} \quad 12\cdot7$$

This is a quick way to divide by 10:

Move all the digits **one place to the right**.

Notice that the **units** digit becomes the **tenths** digit.

Use the quick way to find:

3 **(a)** 12·0 ÷ 10 **(b)** 39·0 ÷ 10 **(c)** 76·0 ÷ 10
(d) 143 ÷ 10 **(e)** 109 ÷ 10 **(f)** 265 ÷ 10

4 Find: **(a)** $\frac{1}{10}$ of 49 **(b)** $\frac{1}{10}$ of 96 **(c)** $\frac{1}{10}$ of 105
(d) $\frac{1}{10}$ of 321 **(e)** $\frac{1}{10}$ of 288

5 Angus covered a distance of 24 metres in 20 big strides.
What distance did he cover in:
(a) 10 big strides, **(b)** 1 big stride?

6 Angus's sister took 100 steps to walk a distance of 50 metres.
What distance did she walk in:
(a) 10 steps, **(b)** 1 step?