Divide decimals by integers

1 Use place value counters to work out the divisions.

a) 8.4 ÷ 4 = ☐

Ones	Tenths
1 1 1 1 1 1 1 1	0.1 0.1 0.1 0.1

b) 12.3 ÷ 3 = ☐

Tens	Ones	Tenths
10	1 1	0.1 0.1 0.1

2 Work out the division. Draw your answer.

16.4 ÷ 4 = ☐

Tens	Ones	Tenths

3 Brett uses short division to work out 13.2 ÷ 6

$$\begin{array}{r} 02.2 \\ 6\overline{)13^{1}.1^{1}2} \end{array}$$

Use short division to work out the calculations.

a)

$$\begin{array}{r} \\ 7\overline{)22.4} \end{array}$$

b)

$$\begin{array}{r} \\ 8\overline{)18.48} \end{array}$$

4 Work out the divisions.

a) 25.6 ÷ 8 = ☐

b) 14.8 ÷ 4 = ☐

c) 18.48 ÷ 6 = ☐

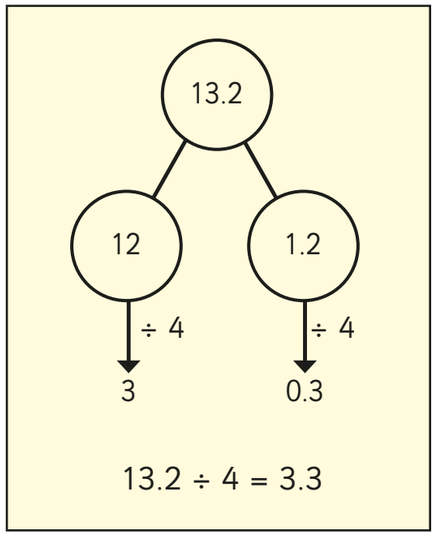
d) ☐ = 19.45 ÷ 5

e) 202.35 ÷ 3 = ☐

f) 105.12 ÷ 9 = ☐

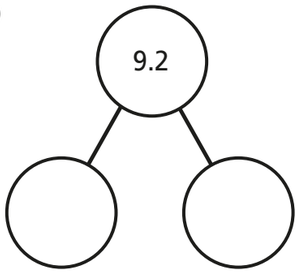
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5 Esther solves 13.2 ÷ 4 by partitioning 13.2 into two numbers that are easier to divide.

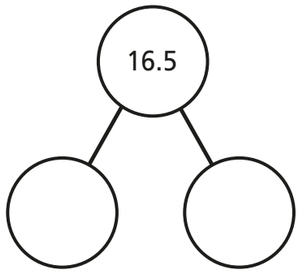


Use Esther's method to complete the part-whole model and calculation.

a)



b)



9.2 ÷ 4 = ☐

16.5 ÷ 3 = ☐

Compare answers with a partner. Did you partition your numbers in the same way?

6 Work out the divisions.

a) 9.64 ÷ 4 = ☐

96.4 ÷ 4 = ☐

0.964 ÷ 4 = ☐

9.64 ÷ 8 = ☐

b) 19.44 ÷ 9 = ☐

19.53 ÷ 9 = ☐

19.62 ÷ 9 = ☐

7 Fill in the missing numbers.

3.6 ÷ 4 = 36 ÷ ☐

3.6 ÷ 4 = ☐ ÷ 8

8 Complete the calculation.

8.4 ÷ ☐ = 4.2 ÷ ☐

How many different solutions can you find?

What patterns do you notice? Talk about it with a partner.

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