Year 6 | Number

Decimal operations and place-value checks

Learn and practise | Free preview

A sample from this topic. The complete topic collection contains three different resources and worked solutions.

Show your thinking using words, working or a labelled drawing. Use the explanations and example first.

What you will practise

• Decimal operations and place-value checks

• Explain and check an answer with an appropriate representation.

Useful starting skills: Use objects, drawings or a number line to explain a simple idea.

For decimal addition and subtraction, align equal place values. Trailing zeros can help record empty places without changing a value. Estimate first to check the likely size of the result.

Multiplying or dividing by a multiple of a power of ten can be split into simpler steps. For example, multiplying by 40 means multiplying by 4 then 10; dividing by 20 means dividing by 2 then 10.

Worked example

Calculate 5.64×30.

$30 = 3 \times 10$, so first find $5.64 \times 3 = 16.92$.

Multiply by 10 to obtain 169.2. An estimate $6 \times 30 = 180$ is close.

Answer: 169.2

Try it yourself

Name: _____ Date: _____

1. Calculate 14.75+3.608.

2. Calculate 20-7.486.

Answers and explanations

Check the method as well as the final answer. An alternative correct method is also valid.

1. 18.358

Align the ones, tenths, hundredths and thousandths; rename 14.75 as 14.750.

2. 12.514

Write 20.000, then subtract with place-value regrouping.

Curriculum reference: VC2M6N04; VC2M6N06

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