Revision

a) **General 2 2014 Q26c**

Solve the equation $\frac{5x+1}{3} - 4 = 5 - 7x$. 3

b) **General 2 2018 Q28b**

Solve the equation $\frac{2x}{5} + 1 = \frac{3x+1}{2}$, leaving your answer as a fraction. 3

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Solution

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Solution

a) $x = 1$

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Solution

a) $x = 1$

b) $x = \frac{5}{11}$

Formulae

Standard

MS-A1 Formulae and Equations

updated: 2021-01-21

Learning Outcome

Topic:

Formulae

Syllabus:

- review evaluating the subject of a formula, given the value of other pronumerals in the formula

Activities/Tasks:

- Cambridge Ex 3D Q1-27

Equations

Definition 1

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Generally a formula is written with a single variable, the **subject** on the LHS and the rest on the right.

$$\underset{\text{subject}}{\underset{\uparrow}{A}} = \frac{1}{2}ab\cos C$$

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Step 1: State the variables in the formula and the known values.

Step 2: Write down the formula and Substitute the known values into the formula.

Step 3: Solve the one variable equation to find the unknown value.

Example 1

The area of a trapezium is given by $A = \frac{h}{2}(a + b)$ where a and b are the lengths of the parallel sides and h is the height.

Calculate the height of a 20 cm^2 trapezium with parallel lengths of 3 cm and 7 cm.

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Solution

$A =$

$h =$

$a =$

$b =$

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$$20 = 5h$$
$$20 \div 5 = 5h \div 5$$

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$$20 = \frac{h}{2}(10)$$
$$20 = 5h$$
$$20 \div 5 = 5h \div 5$$
$$4 = h$$

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$$20 = \frac{h}{2}(10)$$
$$20 = 5h$$
$$20 \div 5 = 5h \div 5$$
$$4 = h$$
$$h = 4$$

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$$20 = \frac{h}{2}(3+7)$$
$$20 = \frac{h}{2}(10)$$
$$20 = 5h$$
$$20 \div 5 = 5h \div 5$$
$$4 = h$$
$$h = 4 \text{ cm}$$

The height of the trapezium is equal to 4 cm.

Today’s work

- Cambridge Ex 3D Q1-27