

Homework/Extension

Step 8: Two-Step Equations

National Curriculum Objectives:

Mathematics Year 6: (6A1) [Express missing number problems algebraically](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Identify which representation is the odd one out when solving two-step equations. Includes all four operations and whole numbers. Some bar models provided for support.

Expected Identify which representation is the odd one out when solving two-step equations. Includes all 4 operations, with whole numbers, decimals and fractions. Some bar models provided for support.

Greater Depth Identify which representation is the odd one out when solving two-step equations. Includes all 4 operations, with whole numbers, decimals and fractions.

Questions 2, 5 and 8 (Varied Fluency)

Developing Identify the two-step equations that don't match the given bar model. Includes all four operations and whole numbers. Some bar models provided for support.

Expected Identify the two-step equations that don't match the given bar model. Includes all 4 operations, with whole numbers, decimals and fractions. Some bar models provided for support.

Greater Depth Identify the two-step equations that don't match the given bar model. Includes all 4 operations, with whole numbers, decimals and fractions.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

Developing Create a two-step equation to reach a given target. Includes all four operations and whole numbers.

Expected Create a two-step equation to reach a given target. Includes all 4 operations, with whole numbers, decimals and fractions.

Greater Depth Create a two-step equation to reach a given target. Includes all 4 operations, with whole numbers, decimals and fractions.

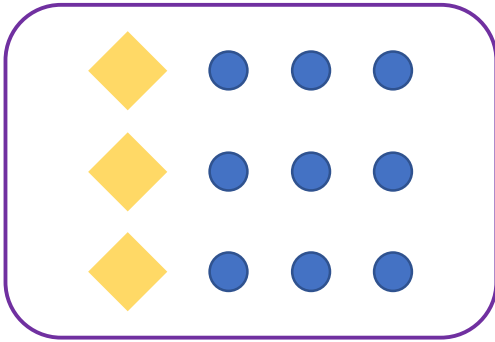
More [Year 6 Algebra](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

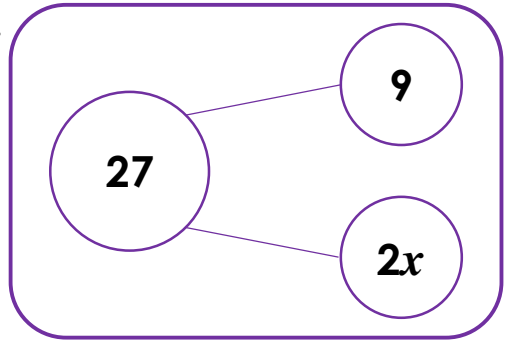
Two-Step Equations

1. Which one of the following is the odd one out?

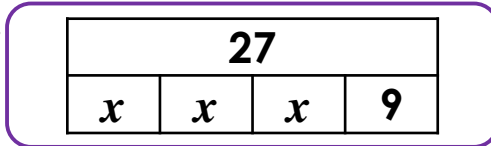
A.



B.

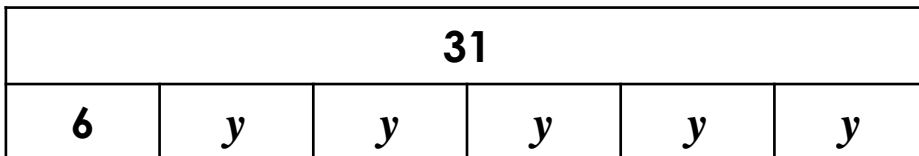


C.



VF
HW/Ext

2. Circle the equation that does not match the bar model below.



A.

$$y + y + y + y + y + 6 = 31$$

B.

$$3y + 6 + y = 31$$

C.

$$5y + 6 = 31$$



VF
HW/Ext

3. Fabian is thinking of a number. Use the clues below to identify his equation and the value of a .



Fabian

I am thinking of a number (a).
When I multiply my number by 3 and add 4, it gives me a whole number that is less than 15.

Find 3 possible values of a and write the equations.

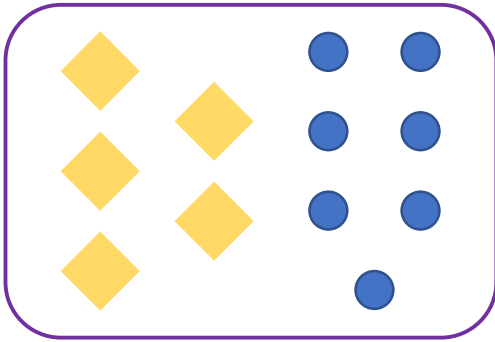


RPS
HW/Ext

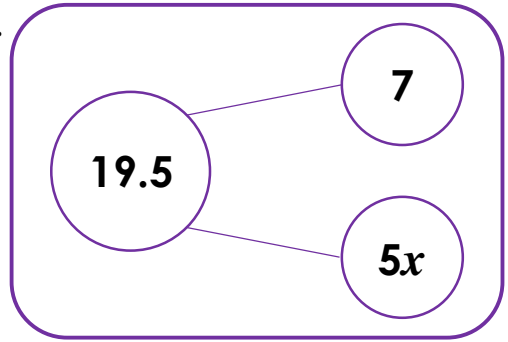
Two-Step Equations

4. Which one of the following is the odd one out?

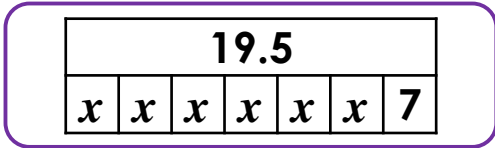
A.



B.



C.



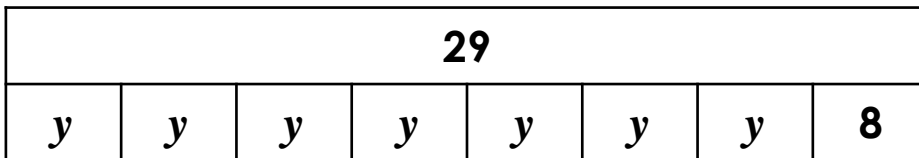
D.

$$5x + 7 = 19.5$$



VF
HW/Ext

5. Circle the equations that do not match the bar model below.



A.

$$6y + 8 = 29$$

B.

$$8 + 7y = 29$$

C.

$$7y + 4 + 3 = 29$$

D.

$$7y + 8 = 29$$



VF
HW/Ext

6. Alistair is thinking of a number. Use the clues below to identify his equation and the value of a .



Alistair

I am thinking of a number (a).
When I multiply my number by 5 and add 7, it gives me a number with 1 decimal place that is less than 30.

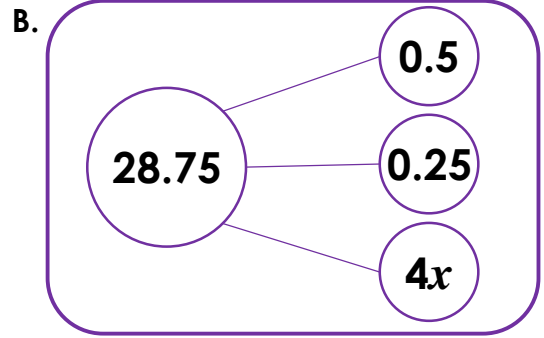
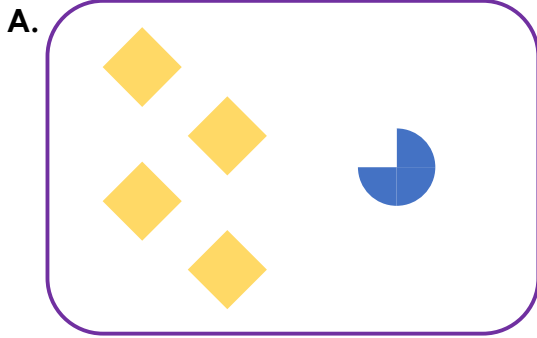
Find 3 possible values of a and write the equations.



RPS
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Two-Step Equations

7. Which one of the following is the odd one out?



C.

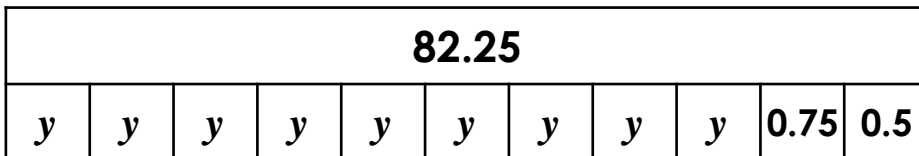
28.75				
x	x	x	x	$\frac{20}{28}$

D. $4x + 0.75 = 28.75$



VF
HW/Ext

8. Circle the equations that do not match the bar model below.



A. $9y + 1.25 = 82.25$

B. $9y + 1.5 - 0.5 = 82.25$

C. $9y + 0.75 = 82.25$

D. $3y + 0.25 + 6y = 82.25$



VF
HW/Ext

9. Lydia is thinking of a number. Use the clues below to identify her equation and the value of a .



Lydia

I am thinking of a number (a).
When I multiply my number by $\frac{1}{2}$ and add 4.5, it gives me a number that is less than 50.

Find 3 possible values of a and write the equations.



RPS
HW/Ext

Homework/Extension Two-Step Equations

Developing

1. **B**
2. **B**
3. **Various answers, for example: $3 \times 1 + 4 = 7$; $3 \times 2 + 4 = 10$; $3 \times 3 + 4 = 13$**

Expected

4. **C**
5. **A and C**
6. **Various answers, for example: $5 \times 2.5 + 7 = 19.5$; $5 \times 1.5 + 7 = 14.5$; $5 \times 4.5 + 7 = 29.5$**

Greater Depth

7. **C**
8. **B, C and D**
9. **Various answers, for example: $\frac{1}{2} \times 20 + 4.5 = 14.5$; $\frac{1}{2} \times 50 + 4.5 = 29.5$; $\frac{1}{2} \times 90 + 4.5 = 49.5$**