

# Reasoning and Problem Solving

## Step 8: Add and Subtract 10s

### National Curriculum Objectives:

Mathematics Year 2: (2C2a) [Add and subtract numbers mentally, including: a two-digit number and tens](#)

Mathematics Year 2: (2C2b) [Add and subtract numbers using concrete objects and pictorial representations, including: a two-digit number and tens](#)

### Differentiation:

Questions 1, 4 and 7 (Problem Solving)

**Developing** Using the shapes to add and subtract two multiples of 10 (numbers no greater than 50).

**Expected** Using the shapes to add and subtract any 2-digit number and a multiple of 10 (numbers no greater than 50).

**Greater Depth** Using the shapes to add and subtract any 2-digit number and a multiple of 10 (numbers no greater than 100).

Questions 2, 5 and 8 (Reasoning)

**Developing** Adding and subtracting two multiples of 10 (numbers no greater than 50).

**Expected** Adding and subtracting any 2-digit number and a multiple of 10 (numbers no greater than 50).

**Greater Depth** Adding and subtracting any 2-digit number and a multiple of 10 (numbers no greater than 100).

Questions 3, 6 and 9 (Problem Solving)

**Developing** Adding and subtracting two multiples of 10 (numbers no greater than 50).

**Expected** Adding and subtracting any 2-digit number and a multiple of 10 (numbers no greater than 50).

**Greater Depth** Adding and subtracting any 2-digit number and a multiple of 10 (numbers no greater than 100).

[More resources](#) which follow the same small steps as White Rose.

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

# Reasoning and Problem Solving – Add and Subtract 10s

1a. Complete the calculation below using the following shapes.

$$\triangle = 10$$

$$\begin{array}{|c|} \hline \triangle \\ \hline \end{array} + \begin{array}{|c|} \hline \triangle \\ \hline \end{array} = \begin{array}{|c|} \hline \\ \hline \end{array}$$



PS

1b. Complete the calculation below using the following shapes.

$$\triangle = 10$$

$$\begin{array}{|c|} \hline \triangle \triangle \\ \hline \end{array} - \begin{array}{|c|} \hline \triangle \\ \hline \end{array} = \begin{array}{|c|} \hline \\ \hline \end{array}$$



PS

2a. Is Fatima correct? Explain why.



Fatima

If I have 10 shells and I'm given 20 more, I will have 30 shells altogether.



R

2b. Is Ivan correct? Explain why.



Ivan

If I have 20 blueberries and I eat 10 of them, I will have 30 blueberries left.



R

3a. Insert the correct symbol into the boxes below.

a) 10  10 = 20

b) 30  20 = 50

c) 50  30 = 20



PS

3b. Insert the correct symbol into the boxes below.

a) 30  10 = 20

b) 20  20 = 40

c) 40  10 = 30

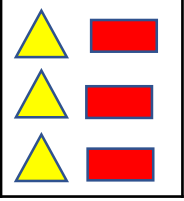
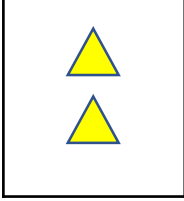
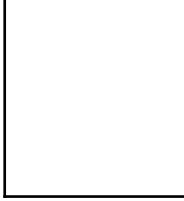


PS

# Reasoning and Problem Solving – Add and Subtract 10s

4a. Complete the calculation below using the following shapes.

 = 10       = 1

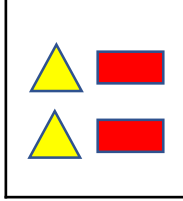
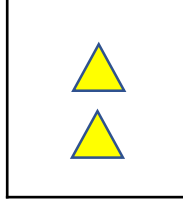

 -  = 



PS

4b. Complete the calculation below using the following shapes.

 = 10       = 1

 +  = 



PS

5a. Is Katie correct? Explain why.



Katie

If I have 26 sweets and I'm given 30 more, I will have 50 sweets altogether.



R

5b. Is Noah correct? Explain why.



Noah

If I have 46 strawberries and I eat 20 of them, I will have 26 strawberries left.



R

6a. Insert the correct symbol into the boxes below.

a) 23  10 = 13

b) 37  20 = 17

c) 13  30 = 43



PS

6b. Insert the correct symbol into the boxes below.

a) 12  30 = 42

b) 25  20 = 5

c) 19  10 = 29

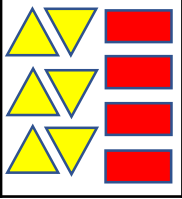
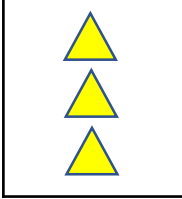


PS

# Reasoning and Problem Solving – Add and Subtract 10s

7a. Complete the calculation below using the following shapes.

 = 10       = 1

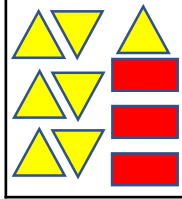
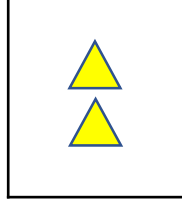
 -  =



PS

7b. Complete the calculation below using the following shapes.

 = 10       = 1

 +  =



PS

8a. Is Mohammed correct? Explain why.



If I have 57 pebbles and I'm given 40 more, I will have 90 pebbles altogether.

Mohammed



R

8b. Is Alicia correct? Explain why.



If I have 73 marbles and I lose 50 of them, I will have 23 marbles left.

Alicia



R

9a. Insert the correct symbol into the boxes below.

a) 47  40 = 87

b) 83  30 = 53

c) 13  70 = 83



PS

9b. Insert the correct symbol into the boxes below.

a) 42  50 = 92

b) 89  50 = 39

c) 66  60 = 6



PS

# Reasoning and Problem Solving – Add and Subtract 10s

## Developing

1a. 4 triangles = 40

1b. 2 triangles = 20

2a. Fatima is correct.  $10 + 20 = 30$

2b. Ivan is incorrect.  $20 - 10 = 10$

3a. +, +, -

3b. -, +, -

## Expected

4a. 1 triangle and 3 rectangles = 13

4b. 4 triangles and 2 rectangles = 42

5a. Katie is incorrect.  $26 + 30 = 56$

5b. Noah is correct.  $46 - 20 = 26$

6a. -, -, +

6b. +, -, +

## Greater Depth

7a. 3 triangles and 4 rectangles = 34

7b. 9 triangles and 3 rectangles = 93

8a. Mohammed is incorrect.  $57 + 40 = 97$

8b. Alicia is correct.  $73 - 50 = 23$

9a. +, -, +

9b. +, -, -