Homework/Extension
Step 6: Percentages – Missing Values

National Curriculum Objectives:

Mathematics Year 6: (6R2) Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
Mathematics Year 6: (6F11) Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Circle the correct whole to complete the given statements. Percentages are multiples of 10%.
Expected Circle the correct whole to complete the given statements. Percentages are multiples of 5% and 10%. Some answers include decimal places.
Greater Depth Circle the correct whole to complete the given statements. Includes any percentage, including multiples of 0.5%. Answers may include decimal places.

Questions 2, 5 and 8 (Varied Fluency)
Developing Complete the comparative statements using the values provided. Percentages are multiples of 10%.
Expected Complete the comparative statements using the values provided. Percentages are multiples of 5% and 10%, with some multiples of 1%. Some answers include decimal places.
Greater Depth Complete the comparative statements using the values provided. Includes any percentage, including multiples of 0.5%. Answers may include decimal places.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Agree or disagree with a given statement. Percentages are multiples of 10%.
Expected Agree or disagree with a given statement. Percentages are multiples of 5% and 10%, with some multiples of 1%. Some answers include decimal places.
Greater Depth Agree or disagree with a given statement. Includes any percentage, including multiples of 0.5%. Answers may include decimal places.

More Year 6 Percentages resources.

Did you like this resource? Don't forget to review it on our website.

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Percentages – Missing Values

1. Circle the whole to complete the statements below.

A. If 20% is 60, the whole is…

310

300

290

B. If 60% is 120, the whole is…

190

210

200

VF
HW/Ext

2. Complete the comparative statements below using with the values provided.

| 30% of 340 | 40% of 360 | 90% of 430 | 20% of 180 |

A.   70% of 500   <   [   ]

B.   [   ]   =   10% of 360

C.   [   ]   =   60% of 170

D.   60% of 430   >   [   ]

VF
HW/Ext

3. There are 680 passengers on a train. 40% of the passengers get off at the first station, and the rest of the passengers get off at the second station.

Kevin says,

> 130 more passengers get off at the second station compared to the first station.

Is he correct? Explain your answer.

RPS
HW/Ext

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Homework/Extension – Percentages – Missing Values – Year 6 Developing

Percentages – Missing Values

4. Circle the whole to complete the statements below.

A. If 30% is 39, the whole is…

140

150

130

B. If 55% is 132, the whole is…

220

240

230

5. Complete the comparative statements below using with the values provided.

| 31% of 460 | 15% of 190 | 98% of 200 | 65% of 120 |

A.   70% of 280   =   [   ]

B.   [   ]   <   15% of 250

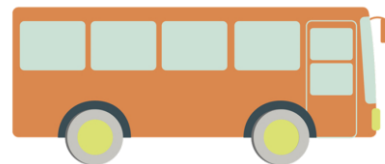C.   [   ]   >   16% of 470

D.   35% of 230   >   [   ]

6. 450 children are on a school trip. 48% of children are in Year 6, 42% of the children are in Year 5 and the rest are in Year 4.

Isobel says,

> There are 27 more Year 5 children than Year 6 children on the school trip.

Is she correct? Explain your answer.

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Percentages – Missing Values

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7. Circle the whole to complete the statements below.

A. If 29% is 43.5, the whole is…   **B. If 67.5% is 135, the whole is…**

149   210

150   190

151   200

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8. Complete the comparative statements below using with the values provided.

| 44% of 490 | 55% of 320 | 35.5% of 420 | 37% of 300 |

A. 65.5% of 160   <   [ ]

B. [ ]   >   19% of 930
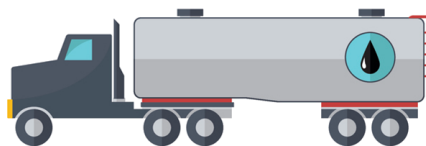
C. [ ]   =   22% of 980

D. 35.5% of 430   >   [ ]

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9. A lorry carries 590 litres of petrol. 27% of it is delivered to the first petrol station, 12% is delivered to the second petrol station, the rest is delivered to the third petrol station.

Isobel says,

> More than 360 more litres of petrol is delivered to the third petrol station.

Is she correct? Explain your answer.

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Homework/Extension – Percentages – Missing Values – Year 6 Greater Depth

Developing
1. A. 300; B. 200
2. A. 90% of 430; B. 20% of 180; C. 30% of 340; D. 40% of 360
3. Various answers, for example:
Kevin is incorrect. 136 more passengers got off at the second station compared to the first station, not 130. This is because 40% of 680 is 272 and 60% of 680 is 408; 408 passengers – 272 passengers = 136 passengers.

Expected
4. A. 130; B. 240
5. A. 98% of 200; B. 15% of 190; C. 31% of 460; D. 65% of 120
6. Various answers, for example:
Isobel is incorrect. There are 27 more Year 6 children than Year 5 children on the school trip, not the other way round. This is because 48% of 450 is 216 and 42% of 451890 is 184; 216 children – 189 children = 27 children.

Greater Depth
7. A. 150; B. 200
8. C. 44% of 490; A, B and D – various answers, for example: A. 37% of 300; B. 55% of 320; D. 35.5% of 420
9. Various answers, for example:
Isobel is incorrect. This is because 27% + 12% = 39%; 39% of 590L = 230.1L. The petrol that is delivered to the third petrol station makes up the remaining 61%; 61% of 590 = 359.9L.