



DEEPENING UNDERSTANDING ANSWER SHEET

YEAR 6 PIM – FRACTION OF AN AMOUNT

Fluency 1

£42					
£7	£7	£7	£7	£7	£7

$$\frac{1}{6} \text{ of } £42 = \boxed{£7} \quad \frac{2}{6} \text{ of } £42 = \boxed{£14}$$

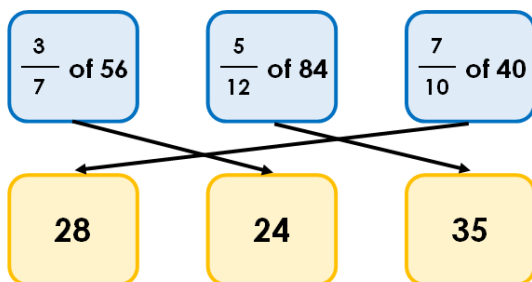
60g				
12g	12g	12g	12g	12g

$$\frac{1}{5} \text{ of } 60\text{g} = \boxed{12\text{g}} \quad \frac{4}{5} \text{ of } 60\text{g} = \boxed{48\text{g}}$$

72p									
8p	8p	8p	8p	8p	8p	8p	8p	8p	8p

$$\frac{4}{9} \text{ of } 72\text{p} = \boxed{32\text{p}} \quad \frac{7}{9} \text{ of } 72\text{p} = \boxed{56\text{p}}$$

Fluency 2



Fluency 3

Caleb ate 16 grapes and Jane ate 15 so Caleb ate the most. There are 9 grapes left over.



Reasoning 1

Pupil responses should show that the statement is false.

Modelled DAB Reasoning Responses

D – False

A – To calculate the fraction of an amount, you divide the amount by the denominator then multiply the answer by the numerator.

B – If you multiply the amount by the denominator, then divide the answer by the numerator, you will end up with a number bigger than the amount. For example, if you were working out one half of 10 and multiplied 10 (the amount) by the denominator (2) your answer would be 20. 20×1 (the numerator) is 20 but I know 20 is double 10 not half of 10. Instead, you should divide the amount (10) by the denominator (2) giving the answer 5. 5×1 (the numerator) is 5 so half of 10 is 5.

Reasoning 2

Pupil responses should show that Marlon has not used the bar model correctly.

Modelled DAB Reasoning Response

D – Marlon has not used the bar model correctly.

A – $\frac{5}{11}$ of 66 is not 25.

B – Marlon has drawn his bar model incorrectly. Each part should represent 6 because $66 \div 11 = 6$. $6 \times 5 = 30$ so $\frac{5}{11}$ of 66 is 30.

Reasoning 3

Pupil responses should show that Jerry, Asha and Ranjit are not correct.

Modelled DAB Reasoning Response

D – They are not correct.

A – They have not worked out the fractions of the amounts correctly.

B – Jerry has divided the amount by the numerator then multiplied this by the denominator. Asha has divided her amount by both the denominator and the numerator. Ranjit has not divided the amount by the denominator correctly. $49 \div 7 = 7$ and $7 \times 6 = 42$.



Download our 'DAB' posters to support reasoning in your classroom:

<https://www.deepeningunderstanding.co.uk/product/dab-reasoning-posters/>

Problem Solving 1

There are 5 possible solutions.

$$\frac{2}{9} \text{ of } 270 = 60$$

$$\frac{1}{5} \text{ of } 300 = 60$$

$$\frac{3}{7} \text{ of } 140 = 60$$

$$\frac{2}{3} \text{ of } 90 = 60$$

$$\frac{3}{8} \text{ of } 160 = 60$$

