Division to Solve Problems

7a. Fiaz thinks that he should calculate 87.48 ÷ 12 then divide the answer by 9. Is he correct? Explain your thinking and solve the problem.

A chocolate company is working out its costs. A multi-pack of chocolate boxes costs £87.48. Each multi-pack contains nine boxes and each box contains 12 luxury chocolates. How much does each chocolate box and each chocolate cost?

GD PS

8a. Armani has written the following comparisons.

A. 14 ÷ 8 = 10.5 ÷ 6 > 12.81 ÷ 7

B. 129 ÷ 12 > 93.61 ÷ 11 = 76.59 ÷ 9

C. 109.9 ÷ 7 < 136.8 ÷ 9 > 181.2 ÷ 12

Is he correct?
Find and explain any errors.

GD R

9a. Use the digit cards to complete the calculation. The divisor is less than 5.

9	3	5	7	9	4

□□ ÷ □ = □ . □□

GD PS

Division to Solve Problems

7b. Benji thinks that he should calculate £3.97 ÷ 7 then subtract the answer from £20. Is he correct? Explain your thinking and solve the problem.

Luke posts 7 parcels. The postage costs the same for each parcel. He pays with a £20 note and gets £3.97 change. How much does each parcel cost to post?

GD PS

8b. Katie has written the following comparisons.

A. 38.4 ÷ 12 > 16 ÷ 5 > 39.71 ÷ 11

B. 13.5 ÷ 2 > 75.35 ÷ 11 = 82.2 ÷ 12

C. 87.9 ÷ 6 = 131.85 ÷ 9 > 118 ÷ 8

Is she correct?
Find and explain any errors.

GD R

9b. Use the digit cards to complete the calculation. The divisor is greater than 6.

8	4	5	7	8	3

□□ ÷ □ = □ . □□

GD PS

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Reasoning and Problem Solving
Division to Solve Problems

Developing

1a. He is incorrect. He should calculate £4.26 ÷ 3 which means they pay £1.42 each.

2a. A is incorrect: 3.2 > 3.1
B is incorrect: 1.3 > 1.03

3a. 19 ÷ 2 = 9.5

Expected

4a. He is incorrect. He should calculate £7.80 ÷ 5 which equals £1.56 per bottle.

5a. A is incorrect: 43 > 42
B is incorrect: 18.7 > 18.6
C is incorrect: 23 < 24

6a. 19 ÷ 4 = 4.75

Greater Depth

7a. He is incorrect. He should calculate £87.48 ÷ 9 then divide the answer £9.72 by 12. This means each chocolate box costs £9.72 and each chocolate costs 81p.

8a. A is incorrect: the second calculation should be 1.75 < 1.83
B is correct.
C is incorrect: the first calculation should be 15.7 > 15.2

9a. 39 ÷ 4 = 9.75

Reasoning and Problem Solving
Division to Solve Problems

Developing

1b. She is incorrect. She should calculate £47.60 ÷ 4 which means they each take home £11.90.

2b. A is incorrect: 12.4 > 12.2
B is incorrect: 10.1 < 10.2

3b. 37 ÷ 2 = 18.5

Expected

4b. She is correct. 4.5 and 4.50 are the same. So 4.50 ÷ 6 = 0.75 hours or 45 minutes to make each pie.

5b. A is incorrect: 10.7 < 10.8
B is incorrect: 30.2 = 30.2
C is correct: 8.61 = 8.61

6b. 6.8 ÷ 5 = 1.36

Greater Depth

7b. He is incorrect. He should calculate £20.00 - £3.97 then divide the answer by 7. This means all seven parcels cost £16.03 to post. £16.03 ÷ 7 = £2.29 to post each parcel.

8b. A is incorrect: 3.2 = 3.2 < 3.61
B is incorrect: the first calculation should be 6.75 < 6.85
C is incorrect: the second part of the calculation should be 14.65 < 14.75

9b. 38 ÷ 8 = 4.75

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