

Reasoning and Problem Solving

Step 6: Divide 2 Digits by 1 Digit 2

National Curriculum Objectives:

Mathematics Year 3: (3C6) [Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables](#)

Mathematics Year 3: (3C7) [Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods](#)

Differentiation:

Questions 1, 4 and 7 (Reasoning)

Developing Solve and explain a problem by dividing a 2-digit number by a 1-digit number. Supported with pictorial representations and scaffolding. No remainders are used.

Expected Solve and explain a problem by dividing a 2-digit number by a 1-digit number. Supported with pictorial representations. No remainders are used.

Greater Depth Solve and explain a problem by dividing a 2-digit number by a 1-digit number. Children create their own pictorial representation. No remainders are used.

Questions 2, 5 and 8 (Problem Solving)

Developing Arrange digit cards to divide a 2-digit number by a 1-digit number. Supported with pictorial support and partially completed scaffolding.

Expected Arrange digit cards to divide a 2-digit number by a 1-digit number. Blank scaffolding provided.

Greater Depth Arrange digit cards to divide a 2-digit number by a 1-digit number. No frames provided.

Questions 3, 6 and 9 (Problem Solving)

Developing Sort calculations to compare two divisions of 2-digit numbers by a 1-digit number. Supported with pictorial representations.

Expected Sort calculations to compare two divisions of 2-digit numbers by a 1-digit number. Supported with partially completed scaffolded number sentences.

Greater Depth Sort number and operation cards to compare two divisions of 2-digit numbers by 1-digit numbers.

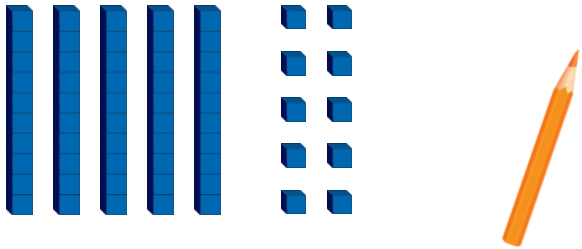
More [Year 3 Multiplication and Division](#) resources.

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

Divide 2 Digits by 1 Digit 2

Divide 2 Digits by 1 Digit 2

1a. During art class, 60 pencils are shared equally between 5 children. They think they will get 11 each.

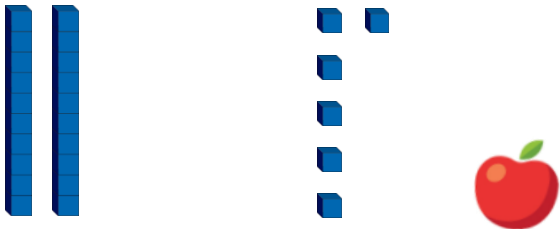


Use the partitioning method to work out if the children are correct. Explain your answer.



R

1b. At breaktime, 26 apples are shared between 2 classes. The children think there will be 12 apples for each class.

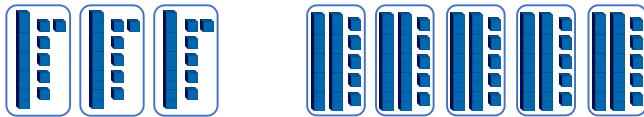
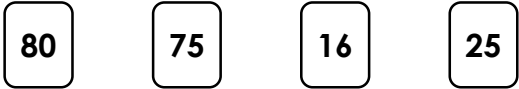


Use the partitioning method to work out if the children are correct. Explain your answer.



R

2a. Here are some digit cards.



Use the partitioning method to complete two number sentences with these cards.

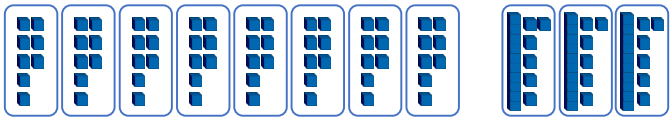
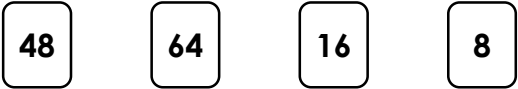
÷ 3 =

÷ 5 =



PS

2b. Here are some digit cards.



Use the partitioning method to complete two number sentences with these cards.

÷ 8 =

÷ 3 =



PS

3a. Sort the calculations and symbols to create two comparison statements.

÷ 5

÷ 3

=

<

÷ 8

÷ 2



PS

3b. Sort the calculations and symbols to create two comparison statements.

÷ 2

÷ 5

>

÷ 2

=

÷ 3

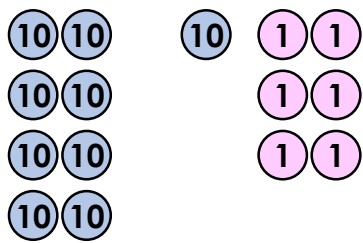


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Divide 2 Digits by 1 Digit 2

Divide 2 Digits by 1 Digit 2

4a. Thomas has 96 sweets that he shares equally between himself and 3 friends. He thinks they will have 20 sweets each.

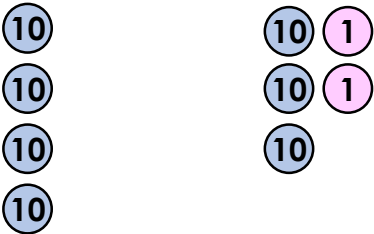


Use the partitioning method to work out if Thomas is correct. Explain your answer.



R

4b. A teacher has 72 pencils that they share equally between 8 pupils. The children think they will have 10 pencils each.

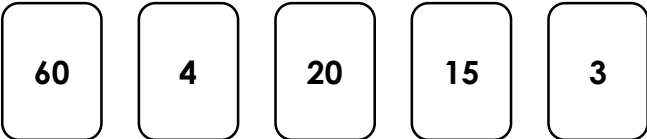


Use the partitioning method to work out if the children are correct. Explain your answer.



R

5a. Here are some digit cards.



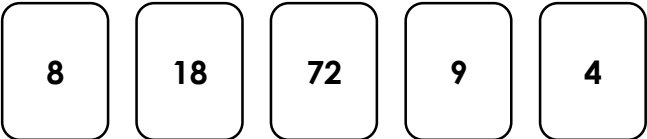
Use the partitioning method to complete two number sentences with these cards.

$$\begin{array}{ccc} \square & \div & \square = \square \\ \square & \div & \square = \square \end{array}$$



PS

5b. Here are some digit cards.



Use the partitioning method to complete two number sentences with these cards.

$$\begin{array}{ccc} \square & \div & \square = \square \\ \square & \div & \square = \square \end{array}$$



PS

6a. Dividing by 2, 3, 4, 5, or 8 with no remainders, insert the missing numbers or symbols to complete the comparison statements below.

A. $76 \div 4$ $\square$ $54 \div \square$

B. $\square \div 3$ $\square$ $64 \div 4$

C. $72 \div 4$ $\square$ $\square \div 3$

D. $36 \div 4$ $\square$ $56 \div 8$



PS

6b. Dividing by 2, 3, 4, 5, or 8 with no remainders, insert the missing numbers or symbols to complete the comparison statements below.

A. $\square \div 5$ $\square$ $32 \div 2$

B. $76 \div 2$ $\square$ $80 \div \square$

C. $96 \div 8$ $\square$ $65 \div 5$

D. $56 \div 4$ $\square$ $\square \div 8$

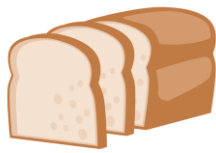


PS

Divide 2 Digits by 1 Digit 2

Divide 2 Digits by 1 Digit 2

7a. At breakfast club, 90 slices of toast were shared equally between 5 plates. The children think there will be 16 slices on each plate.



Explain your answer and, using the partitioning method, draw a pictorial representation to show your calculation.



R

7b. At after school club, 78 cookies were shared equally between 3 bowls. The children think there will be 24 cookies in each bowl.



Explain your answer and, using the partitioning method, draw a pictorial representation to show your calculation.



R

8a. Here are some digit cards.

4

72

84

6

14

12

Use the partitioning method to find two different division number sentences with these cards.



PS

8b. Here are some digit cards.

18

12

90

96

8

5

Use the partitioning method to find two different division number sentences with these cards.



PS

9a. Use all the cards below to create a two-step comparison statement.

72

3

2

÷

÷

÷

2

÷

4

=

54



PS

9b. Use all the cards below to create a two-step comparison statement.

5

84

4

÷

75

÷

3

<

5

÷

÷



PS

Reasoning and Problem Solving

Divide 2 Digits by 1 Digit 2

Developing

- 1a. No, they are not correct because $60 \div 5 = 12$ (partitioned as $50 \div 5 + 10 \div 5$).
2a. $75 \div 3 = 25$, $80 \div 5 = 16$
3a. $26 \div 2 = 13 = 39 \div 3 = 13$
 $32 \div 8 = 4 < 35 \div 5 = 7$

Expected

- 4a. No, he is not correct because $96 \div 4 = 24$ (96 partitioned as $80 \div 4 + 16 \div 4$).
5a. $60 \div 4 = 15$, $60 \div 3 = 20$
6a. A. $76 \div 4 = 19 > 54 \div 3 = 18$ or
 $54 \div 2 = 27$;
B. $48 \div 3 = 16$
C. Various answers, for example: $99 \div 3 = 33$, $57 \div 3 = 19$, $63 \div 3 = 21$, $60 \div 3 = 20$, $72 \div 3 = 24$
D. $36 \div 4 = 9 > 56 \div 8 = 7$

Greater Depth

- 7a. No, they are not correct because $90 \div 5 = 18$ (partitioned as $50 \div 5 + 40 \div 5$).
8a. $84 \div 6 = 14$, $72 \div 4 = 18$
9a. $72 \div 4 \div 2 = 9 = 54 \div 3 \div 2 = 9$

Reasoning and Problem Solving

Divide 2 Digits by 1 Digit 2

Developing

- 1b. No, they are not correct because $26 \div 2 = 13$ (partitioned as $20 \div 2 + 6 \div 2$).
2b. $64 \div 8 = 8$, $48 \div 3 = 16$
3b. $45 \div 3 = 15 = 30 \div 2 = 15$
 $24 \div 2 = 12 < 70 \div 5 = 14$

Expected

- 4b. No, they are not correct because $72 \div 8 = 9$ (72 partitioned as $40 \div 8$ and $32 \div 8$).
5b. $72 \div 8 = 9$, $72 \div 4 = 18$
6b. A. $80 \div 5 = 16 = 32 \div 2 = 16$;
B. $76 \div 2 = 38 < 80 \div 2 = 40$;
C. $96 \div 8 = 12 < 65 \div 5 = 13$;
D. Various answers, for example: $96 \div 8 = 12$, $88 \div 8 = 11$, $80 \div 8 = 10$, $72 \div 8 = 9$, $64 \div 8 = 8$

Greater Depth

- 7b. No, they are not correct because $78 \div 3 = 26$ (78 partitioned as $60 \div 3 + 18 \div 3$).
8b. $96 \div 8 = 12$ or $96 \div 12 = 8$, $90 \div 5 = 18$
9b. $75 \div 5 \div 5 = 3 < 84 \div 4 \div 3 = 7$