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.

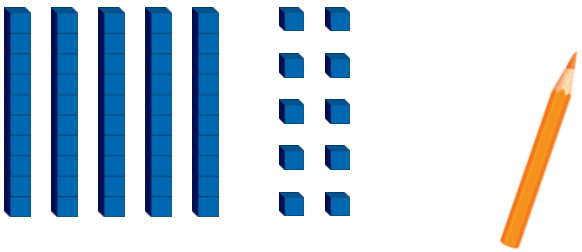
More Year 3 Multiplication and Division resources.

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

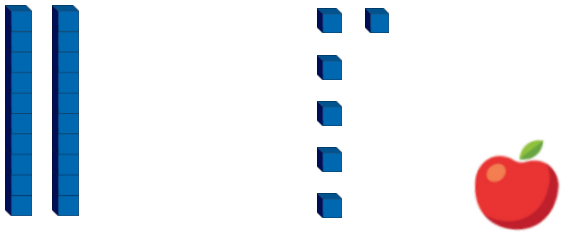
1a. During art class, 60 pencils are shared equally between 5 children. They think they will get 11 each.



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

D R

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

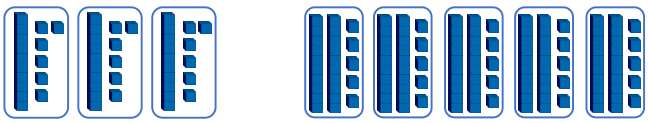


Use the partitioning method to work out if the children are correct. Explain your answer.

D R

2a. Here are some digit cards.

80 75 16 25



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

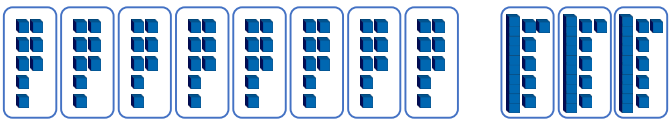
□ ÷ 3 = □

□ ÷ 5 = □

D PS

2b. Here are some digit cards.

48 64 16 8



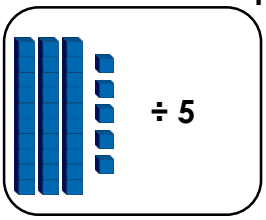
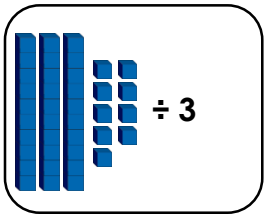
Use the partitioning method to complete two number sentences with these cards.

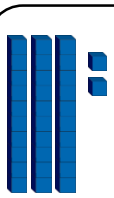
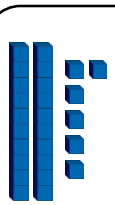
□ ÷ 8 = □

□ ÷ 3 = □

D PS

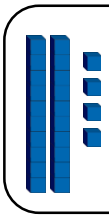
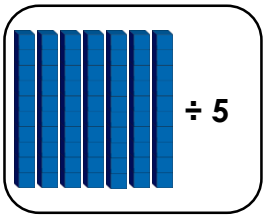
3a. Sort the calculations and symbols to create two comparison statements.

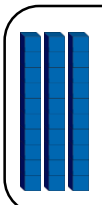
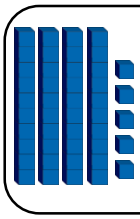
 ÷ 5  ÷ 3 =

<  ÷ 8  ÷ 2

D PS

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

 ÷ 2  ÷ 5 >

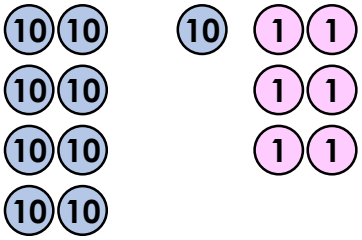
 ÷ 2 =  ÷ 3

D PS

Divide 2 Digits by 1 Digit 2

Divide 2 Digits by 1 Digit 2

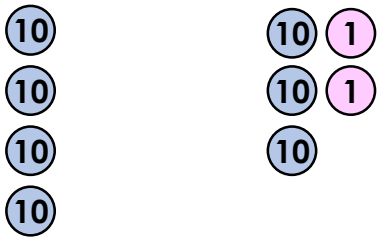
4a. Thomas has 96 sweets that he shares equally between himself and 3 friends. He thinks they will have 20 sweets each.



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

E 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.

E R

5a. Here are some digit cards.

60	4	20	15	3

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

☐ ÷ ☐ = ☐

☐ ÷ ☐ = ☐

E PS

5b. Here are some digit cards.

8	18	72	9	4

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

☐ ÷ ☐ = ☐

☐ ÷ ☐ = ☐

E 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 ÷ 4 > 54 ÷ ☐

B. ☐ ÷ 3 = 64 ÷ 4

C. 72 ÷ 4 < ☐ ÷ 3

D. 36 ÷ 4 ☐ 56 ÷ 8

E 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. ☐ ÷ 5 = 32 ÷ 2

B. 76 ÷ 2 < 80 ÷ ☐

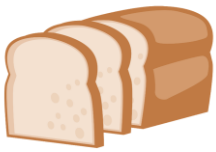
C. 96 ÷ 8 ☐ 65 ÷ 5

D. 56 ÷ 4 > ☐ ÷ 8

E PS

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.

GD R

Divide 2 Digits by 1 Digit 2

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.

GD 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.

GD 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.

GD PS

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

72	3	2
÷	÷	÷
2	÷	4

=	54

GD PS

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

5	84	4
÷	75	÷
3	<	5

÷	÷

GD PS

Reasoning and Problem Solving
Divide 2 Digits by 1 Digit 2

Developing

1a. No, they are not correct because 60 ÷ 5 = 12 (partitioned as 50 ÷ 5 + 10 ÷ 5).

2a. 75 ÷ 3 = 25, 80 ÷ 5 = 16

3a. 26 ÷ 2 = 13 = 39 ÷ 3 = 13
32 ÷ 8 = 4 < 35 ÷ 5 = 7

Expected

4a. No, he is not correct because 96 ÷ 4 = 24 (96 partitioned as 80 ÷ 4 + 16 ÷ 4).

5a. 60 ÷ 4 = 15, 60 ÷ 3 = 20

6a. A. 76 ÷ 4 = 19 > 54 ÷ 3 = 18 or 54 ÷ 2 = 27;
B. 48 ÷ 3 = 16
C. Various answers, for example: 99 ÷ 3 = 33, 57 ÷ 3 = 19, 63 ÷ 3 = 21, 60 ÷ 3 = 20, 72 ÷ 3 = 24
D. 36 ÷ 4 = 9 > 56 ÷ 8 = 7

Greater Depth

7a. No, they are not correct because 90 ÷ 5 = 18 (partitioned as 50 ÷ 5 + 40 ÷ 5).

8a. 84 ÷ 6 = 14, 72 ÷ 4 = 18

9a. 72 ÷ 4 ÷ 2 = 9 = 54 ÷ 3 ÷ 2 = 9

Reasoning and Problem Solving
Divide 2 Digits by 1 Digit 2

Developing

1b. No, they are not correct because 26 ÷ 2 = 13 (partitioned as 20 ÷ 2 + 6 ÷ 2).

2b. 64 ÷ 8 = 8, 48 ÷ 3 = 16

3b. 45 ÷ 3 = 15 = 30 ÷ 2 = 15
24 ÷ 2 = 12 < 70 ÷ 5 = 14

Expected

4b. No, they are not correct because 72 ÷ 8 = 9 (72 partitioned as 40 ÷ 8 and 32 ÷ 8).

5b. 72 ÷ 8 = 9, 72 ÷ 4 = 18

6b. A. 80 ÷ 5 = 16 = 32 ÷ 2 = 16;
B. 76 ÷ 2 = 38 < 80 ÷ 2 = 40;
C. 96 ÷ 8 = 12 < 65 ÷ 5 = 13;
D. Various answers, for example: 96 ÷ 8 =12, 88 ÷ 8 =11, 80 ÷ 8 = 10, 72 ÷ 8 = 9, 64 ÷ 8 = 8

Greater Depth

7b. No, they are not correct because 78 ÷ 3 = 26 (78 partitioned as 60 ÷ 3 + 18 ÷ 3).

8b. 96 ÷ 8 = 12 or 96 ÷ 12 = 8, 90 ÷ 5 = 18

9b. 75 ÷ 5 ÷ 5 = 3 < 84 ÷ 4 ÷ 3 = 7