Yr 4 Multiplication and division Unit 1 (4877)

Additional teacher instructions for practice sheets
These notes indicate which practice sheets are most appropriate for which groups.

Day 1 Using factors Sheet 1

Working towards ARE/ Working at ARE / Greater Depth

Day 2 Multiplying three numbers together Sheet 1

Working towards ARE / Working at ARE / Greater Depth

Using factors

1. Write all the pairs of factors of 12.
   Choose a pair to help you to work out 12 × 31.

2. Write all the pairs of factors of 16.
   Choose a pair to help you to work out 16 × 25.

3. Write all the pairs of factors of 30.
   Choose a pair to help you to work out 30 × 42.

4. Write all the pairs of factors of 18.
   Choose a pair to help you to work out 18 × 31.

5. Use factor pairs to quickly find 6 x 123.

Challenge 1

Choose 3 of the questions and for each one show how you can use a second pair of factors to find and check the answer.
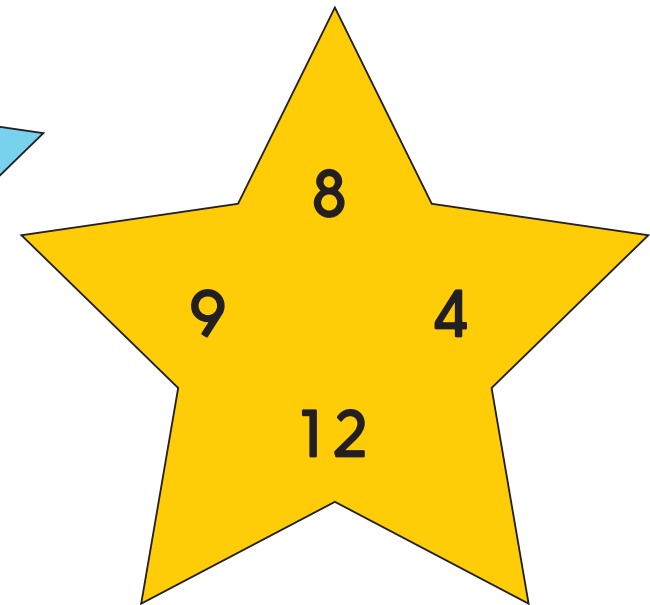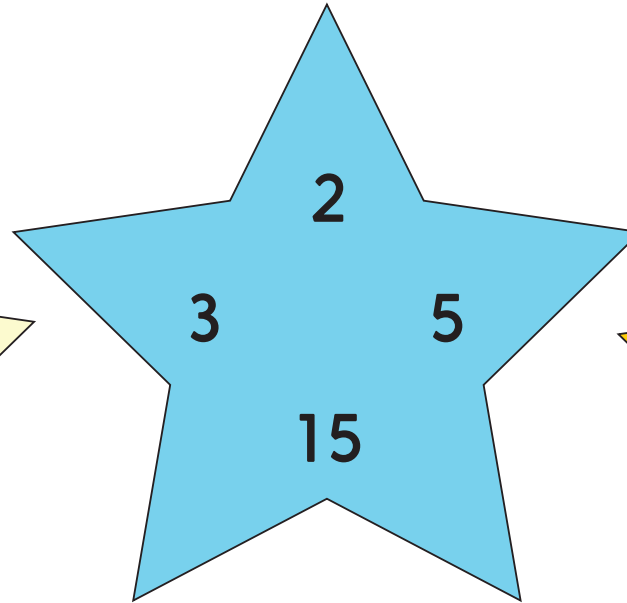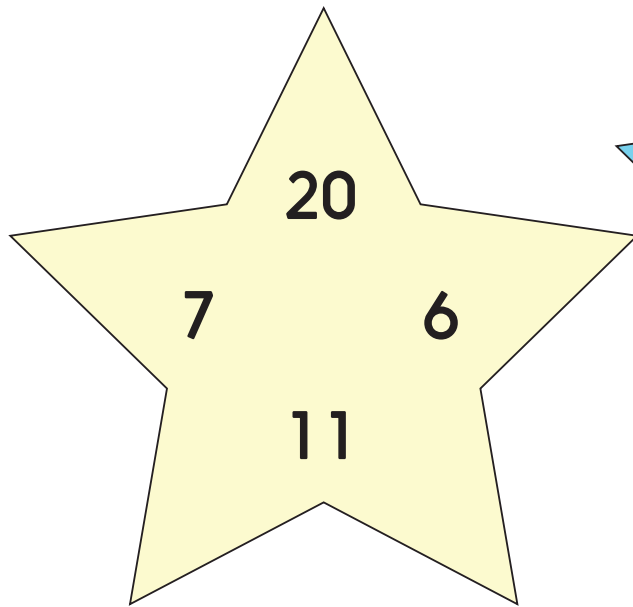
Challenge 2

1. Kristina says '1005 must be a multiple of 15 because it is a multiple of 5 and a multiple of 3.' Do you agree?
2. If you do decide that 1005 is a multiple of 15, use factor pairs and inverse operations to say how many 15s it is.

Multiplying three numbers together

Choose one number from each of the 3 stars.
Decide the easiest order to multiply them together.
Repeat as many times as you can.

Star 1 (yellow): 20, 7, 6, 11

Star 2 (blue): 2, 3, 5, 15

Star 3 (orange): 8, 9, 4, 12

Challenge

Find the missing numbers:

☐ x 7 x 6 = 420   8 x 11 x ☐ = 440   3 x ☐ x 5 = 135

© Hamilton Trust

practice_multi-div_4877_day2

Multiplication and division
Answers

Day 1 Using factors Sheet 1

1.   1 and 12, 2 and 6, 3 and 4
        12 x 31
        3 x 31 = 93, 4 x 93 = 372

2.   1 and 16, 2 and 8, 4 and 4
        16 x 25
        4 x 25 = 100, 100 x 4 = 400

3.   1 and 30, 2 and 15, 3 and 10, 5 and 6
        30 x 42
        3 x 42 = 126, 126 x 10 = 1260

4.   1 and 18, 2 and 9, 3 and 6
        18 x 31
        6 x 31 = 186, 186 x 3 = 558
        or 31 x 3 x 3 x 2 = 93 x 3 x 2 = 279 x 2 = 558

5.   123 x 6 = 123 x 3 x 2
               = 369 x 2 = (370 x 2) – 2
               = 740 – 2 = 738

Challenge 1

1. 12 x 31   2 x 31 = 62, 6 x 62 = 372
2. 16 x 25   2 x 25 = 50, 8 x 50 = 400
3. 30 x 42   2 x 42 = 84, 15 x 84 = 1260
4. 18 x 31   2 x 31 = 62,   9 x 62 = 558
5. There isn't a second pair of factors which would help to find and check this answer.

Challenge 2

1. Yes, multiples of 3 which are also multiples of 5 are all multiples of 15, e.g. 15, 30, 45, but not 12, 18 (multiples of 3) or 10, 25 (multiples of 5).

2. 1005 ÷ 15 is the same as 1005 ÷ 5 ÷ 3.
1005 ÷ 5 = 201; 201 ÷ 3 = 67, so, 1005 ÷ 15 = 67

Day 2 Multiplying three numbers together Sheet 1

Answers could include:

20, 2, 8	20 x 2 = 40	40 x 8 = 320
7, 3, 9	7 x 3 = 21	21 x 9 = 189 (21 x 10) – 21
6, 15, 9	6 x 15 = 90	90 x 9 = 810
11, 5, 12	5 x 11 = 55	55 x 12 = 660 (55 x 11) + 55

Challenge

10 x 7 x 6 = 420   8 x 11 x 5 = 440   3 x 9 x 5 = 135