Multiply 3 numbers   **Bronze**

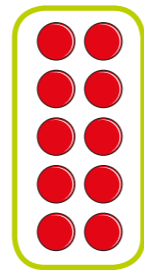**1** Tommy is making arrays using counters.

a) Complete the multiplications.

2 × 5 = ☐   2 × 5 = ☐   2 × 5 = ☐

b) Use your answer to part a) to complete the multiplication.

3 × 2 × 5 = ☐ × 5 = ☐

2 Use counters or cubes to complete the calculations.

a) 2 × 4 × 5 = ☐

b) 3 × 5 × 4 = ☐

c) 2 × 5 × 8 = ☐

Is there a quick way to complete each calculation?

Talk about it with a partner.

3 Complete the multiplications.

a) 3 × 4 × 5 = ☐   **d)** 3 × 5 × 4 = ☐

b) 2 × 3 × 8 = ☐   **e)** 3 × 6 × 10 = ☐

c) 2 × 4 × 7 = ☐   **f)** 2 × 5 × 12 = ☐

4 Is each statement true or false?

Tick your answers.

	True	False
7 × 8 = 7 × 4 × 2	☐	☐
12 × 4 = 2 × 4 × 6	☐	☐
3 × 2 × 8 = 5 × 8	☐	☐
2 × 7 × 4 = 4 × 7 × 2	☐	☐

Compare answers with a partner.

5 Here are some digit cards.   **3** **5** **6**

a) Use the digit cards to create a multiplication and work out the answer.

☐ × ☐ × ☐ = ☐

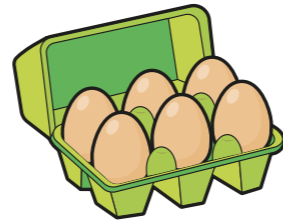**b)** How many different multiplications can you create?

What do you notice about all of your answers?

6 Eggs are put in boxes in arrays of 2 × 3

Dani buys 12 boxes.

How many eggs does she buy altogether?

Dani buys 5 more boxes.

How many eggs does she have now?

7 **a)** Write 30 as the product of 3 numbers.

☐ × ☐ × ☐ = 30

b) How many different ways can you write the multiplication?

_____

_____

8 Kim rolls three 6-sided dice.

The product of her numbers is 60

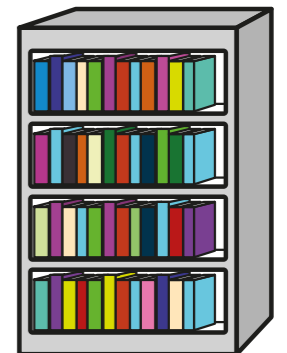**a)** What numbers could she have rolled?

_____

_____

b) How many different ways could Kim have made 60?
Talk about it with a partner.

c) Roll three dice and find the product of the numbers
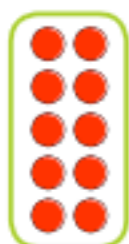you roll.

_____

_____

_____

9 In the library there are 5 bookcases.

Each bookcase has 4 shelves.

On each shelf there are 12 books.

How many books are there in the library?

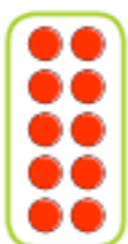**1** Tommy is making arrays using counters.

a) Complete the multiplications.

$2 \times 5 = \boxed{10}$ $2 \times 5 = \boxed{10}$ $2 \times 5 = \boxed{10}$

b) Use your answer to part a) to complete the multiplication.

$3 \times 2 \times 5 = \boxed{6} \times 5 = \boxed{30}$

2 Use counters or cubes to complete the calculations.

a) $2 \times 4 \times 5 = \boxed{40}$

b) $3 \times 5 \times 4 = \boxed{60}$

c) $2 \times 5 \times 8 = \boxed{80}$

Is there a quick way to complete each calculation?

Talk about it with a partner.

3 Complete the multiplications.

a) $3 \times 4 \times 5 = \boxed{60}$ **d)** $3 \times 5 \times 4 = \boxed{60}$

b) $2 \times 3 \times 8 = \boxed{48}$ **e)** $3 \times 6 \times 10 = \boxed{180}$

c) $2 \times 4 \times 7 = \boxed{56}$ **f)** $2 \times 5 \times 12 = \boxed{120}$

4 Is each statement true or false?

Tick your answers.

	True	False
$7 \times 8 = 7 \times 4 \times 2$	✓	
$12 \times 4 = 2 \times 4 \times 6$	✓	
$3 \times 2 \times 8 = 5 \times 8$		✓
$2 \times 7 \times 4 = 4 \times 7 \times 2$	✓	

Compare answers with a partner.

5 Here are some digit cards. $\boxed{3}$ $\boxed{5}$ $\boxed{6}$

a) Use the digit cards to create a multiplication and work out the answer.

$\boxed{3} \times \boxed{5} \times \boxed{6} = \boxed{90}$

b) How many different multiplications can you create?

What do you notice about all of your answers?

6 Eggs are put in boxes in arrays of 2 × 3

Dani buys 12 boxes.

How many eggs does she buy altogether?

$$\boxed{72}$$

Dani buys 5 more boxes.

How many eggs does she have now?

$$\boxed{102}$$

7 a) Write 30 as the product of 3 numbers.

$\boxed{2}$ × $\boxed{3}$ × $\boxed{5}$ = 30

b) How many different ways can you write the multiplication?

E.g.   1 × 6 × 5 = 30

3 × 1 × 10 = 30

8 Kim rolls three 6-sided dice.

The product of her numbers is 60

a) What numbers could she have rolled?

E.g.   2, 5, 6

b) How many different ways could Kim have made 60? Talk about it with a partner.

c) Roll three dice and find the product of the numbers you roll.

9 In the library there are 5 bookcases.

Each bookcase has 4 shelves.

On each shelf there are 12 books.

How many books are there in the library?

$$\boxed{240}$$

Silver

1) Complete the calculations to match the arrays.

2 × 3 =

2 × 3 =

3 × 2 × 3 = 3 × 6 =

2 × 3 =

___ × ___ =

___ × ___ = ___ × ___ =

___ × ___ =

2) Use your knowledge of number facts to solve the calculations.

a) 5 × 7 × 2 = ___

b) 10 × 3 × 1= ___

c) 8 × 3 × 2 = ___

d) ___ × 4 × 5 = 100

e) 3 × 10 × ___ = 180

f) 2 × ___ × 10 = 180

3) Solve this word problem. Draw a picture and write a multiplication calculation to match it.

Amal bought 5 boxes of eggs. Each box of eggs was organised into 2 rows of 6. How many eggs did Amal have altogether?
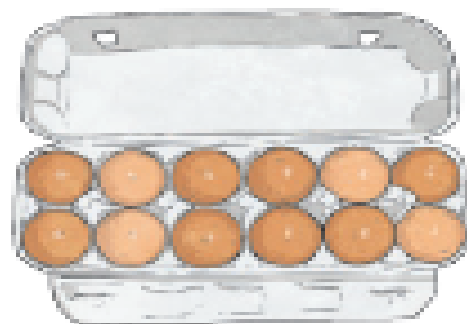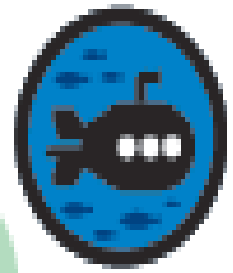
Draw It!

Record It!

1) Read the statement below. Is it always, sometimes or never true? Explain your reasoning.

> Multiplying 3 numbers can be done in any order.

2) Look at the calculations below. Which is the odd one out and why?

1 × 10 × 2 = _____   4 × 5 × 1 = _____
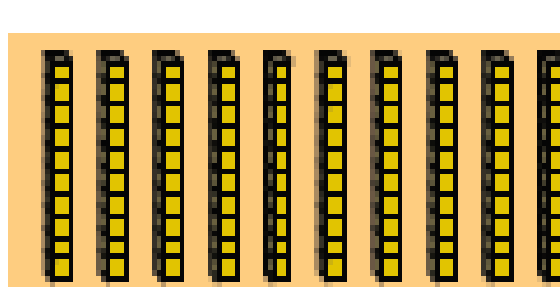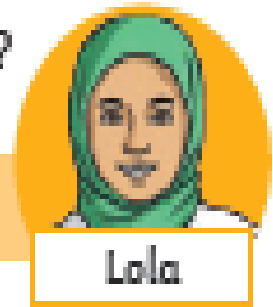
2 × 5 × 3 = _____   2 × 5 × 2 = _____

3) Carly is completing the calculation 10 multiplied by 5 multiplied by 2. She has got a little stuck and has asked her friends for help. Who is correct? Who is incorrect?

10 × 5 × 2 = 100

Lola

Tania

10 × 5 + 2 = 52

Todd

Challenges

1) If the product is 45, what could the calculation be if each factor has one digit?

Find all possibilities.

$\boxed{} \times \boxed{} \times \boxed{} = 45$

2) Write a digit in each square of the grid so that, when the three numbers in each row or each column are multiplied together, the product is always 80. You may use each digit as many times as you like and may repeat it more than once in each grid.

Find three possible solutions.

| 8 | 4 | 2 | 5 | 10 | 1 |