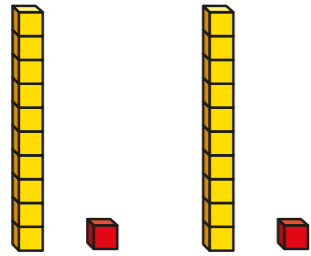


# 11 and 12 times-table

1 The base 10 represents  $2 \times 11$



$$2 \times 11 = 22$$

Use base 10 to work out  $3 \times 11$

Draw your base 10 and complete the multiplication.

$$3 \times 11 = \square$$

2 Complete the calculations.

$$5 \times 11 = \square$$

$$7 \times 11 = \square$$

$$9 \times 11 = \square$$

$$4 \times 11 = \square$$

$$6 \times 11 = \square$$

$$3 \times 11 = \square$$

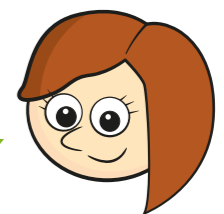
$$10 \times 11 = \square$$

$$12 \times 11 = \square$$



3 Rosie is spotting patterns in the 11 times-table.

When I add together the digits of each multiple of 11, I always get an even number.



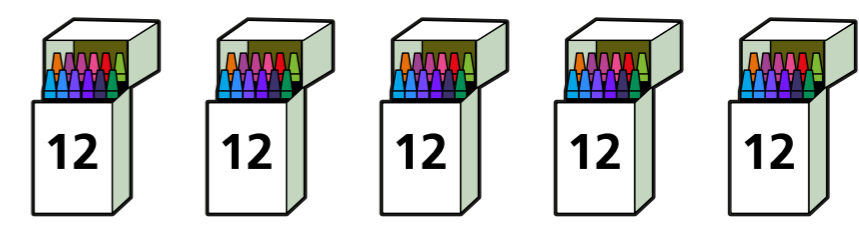
$2 \times 11 = 22$   
 $2 + 2 = 4$  which is an even number

a) Do you agree with Rosie? \_\_\_\_\_  
Explain your answer.  
\_\_\_\_\_  
\_\_\_\_\_

b) What else do you notice?  
What other patterns can you see in the 11 times-table?  
Talk about it with a partner.

4 Crayons come in packs of 12

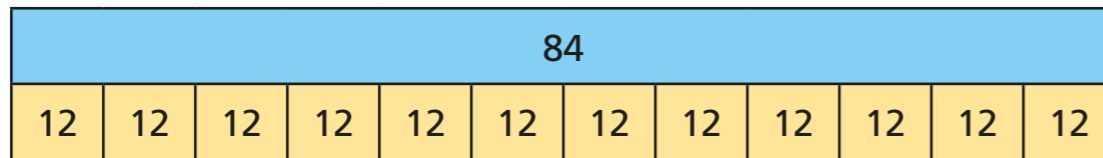
Dora buys 5 packs of crayons.



How many crayons does she have?

Dora has  crayons.

- 5 Ron uses a bar model to represent 84 divided by 12



- a) Explain Ron's mistake.

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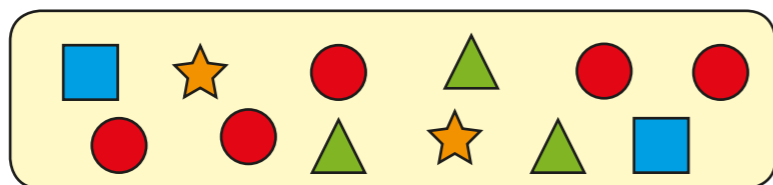
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- b) Draw the correct bar model diagram to represent 84 divided by 12



- 6 Amir is making pictures using shapes.

Here is one picture.



Amir makes 12 pictures like this one.

- a) How many shapes does he use altogether?

Show your working.

- b) If each picture is exactly the same, how many of each shape does Amir use?

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- 7 Mr Scott is organising a cricket tournament.

- a) There are 11 players in a cricket team.

5 teams have signed up for the tournament.

How many players have signed up?

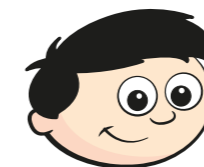
- b) Mr Scott needs 132 players signed up to go ahead with the tournament.

How many more teams are needed?

more teams are needed.

- 8 Dexter has been looking at the 12 times-table.

He notices something when he adds the digits of the multiples of 12 together.



$$1 + 2 = 3$$

$$2 + 4 = 6$$

$$3 + 6 = 9$$

$$4 + 8 = 12$$

- a) Dexter thinks the next number in the pattern will be 15

Is he correct? \_\_\_\_\_

Explain your answer. \_\_\_\_\_

- b) What happens when he tries this for all the multiples of 12 up to  $12 \times 12$ ?

Is there a pattern?

