Can I use known multiplication facts to solve related calculations?

THIRD SPACE LEARNING

Success Criteria

- ❑ I can use multiplication facts to solve other multiplication problems
- ❑ I know that when a number in a calculation is 10 times bigger,the answer will be 10 times bigger too

To use known multiplication facts to solve related calculations

In focus task

These multiplication facts can each be put into pairs with a related fact, except one.

Work with a partner to find the odd one out.

9 x 4

9 x 2

4 x 8

4 x 4

4 x 3

3 x 10

3 x 5

The odd one out is 4 x 3 . The other facts are related:

4 x 8 is double 4 x 4

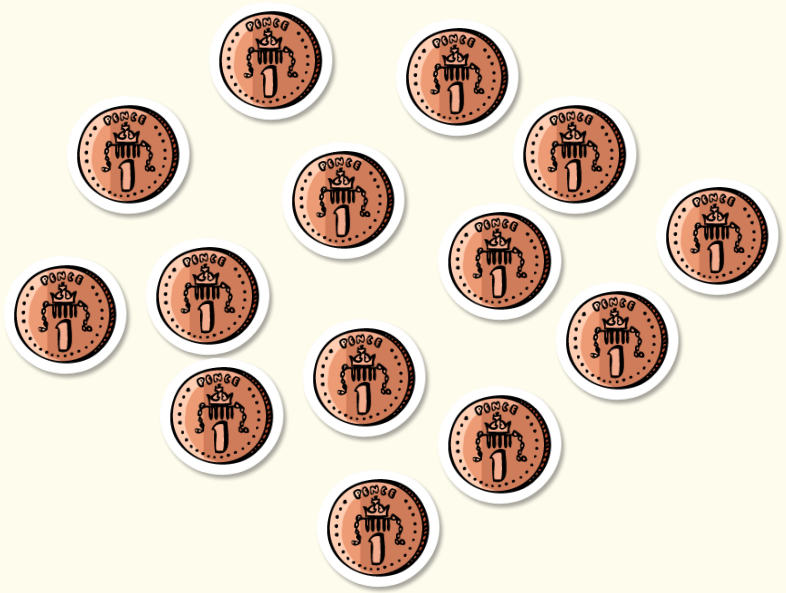
9 x 4 is double 9 x 2

3 x 10 is double 3 x 5

Answers

To use known multiplication facts to solve related calculations

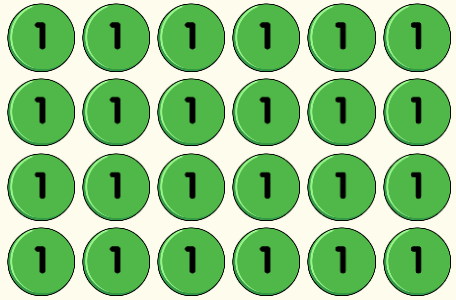
What is the same and what is different about these two piles of money?

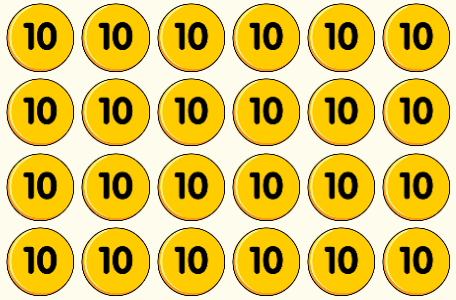


To use known multiplication facts to solve related calculations

Guided Practice:

Complete the multiplication facts.





_____ x _____ = _____

_____ x _____ = _____

How does the first problem help us solve the second?

4 x 6 = 24

4 x 60 = 240

Answers

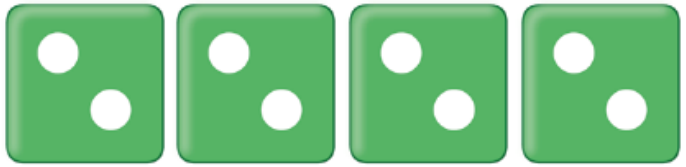
To use known multiplication facts to solve related calculations

Independent Practice:

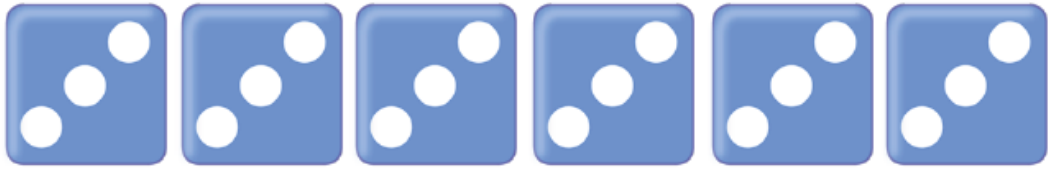
1. Complete two related multiplications:

One where each dot on the dice represents 1.

One related calculation where each dot represents 10.

a. 

b. 

c. 

d. 

To use known multiplication facts to solve related calculations

Guided Practice:

If we know that 3 x 4 = 12, we also know 3 x 40 = 120.

Use this to complete the fact family:

3 x 40 = 120	_____ x _____ = _____
_____ ÷ _____ = _____	_____ ÷ _____ = _____

40 x 3 = 120

120 ÷ 3 = 40

120 ÷ 40 = 3

Answers

To use known multiplication facts to solve related calculations

Independent Practice:

2. Complete fact families for the following calculations

a. 4 x 40 =

b. 30 x 5 =

c. 140 ÷ 2 =

d. 400 ÷ 8 =

e. 6 x 80 =

f. 480 ÷ 12 =

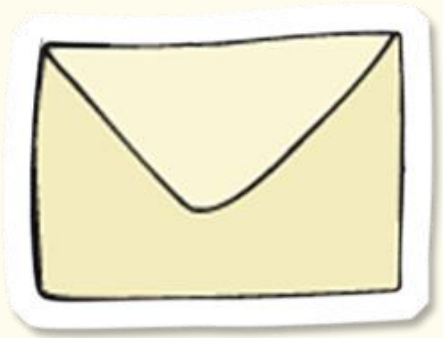
To use known multiplication facts to solve related calculations

Guided Practice:

At the post office envelopes are sold in packs of 10, 20, 30, 40 or 50.

The mathstronaut has 200 letters to send.

What size packs could he buy and how many packs will he need?



Possible answers:

20 packs of 10

10 packs of 20

5 packs of 40

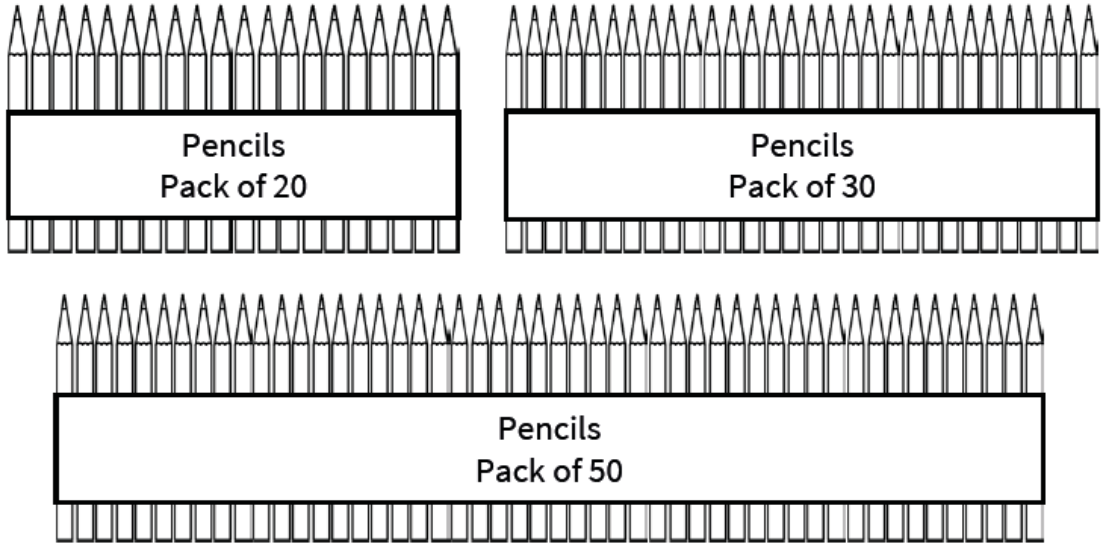
or 4 packs of 50

Answers

To use known multiplication facts to solve related calculations

Independent Practice:

3.



What size packs could each teacher buy and how many of each pack will they need? Find all possible options.

a. Teacher A needs 150 pencils

b. Teacher B needs 180 pencils

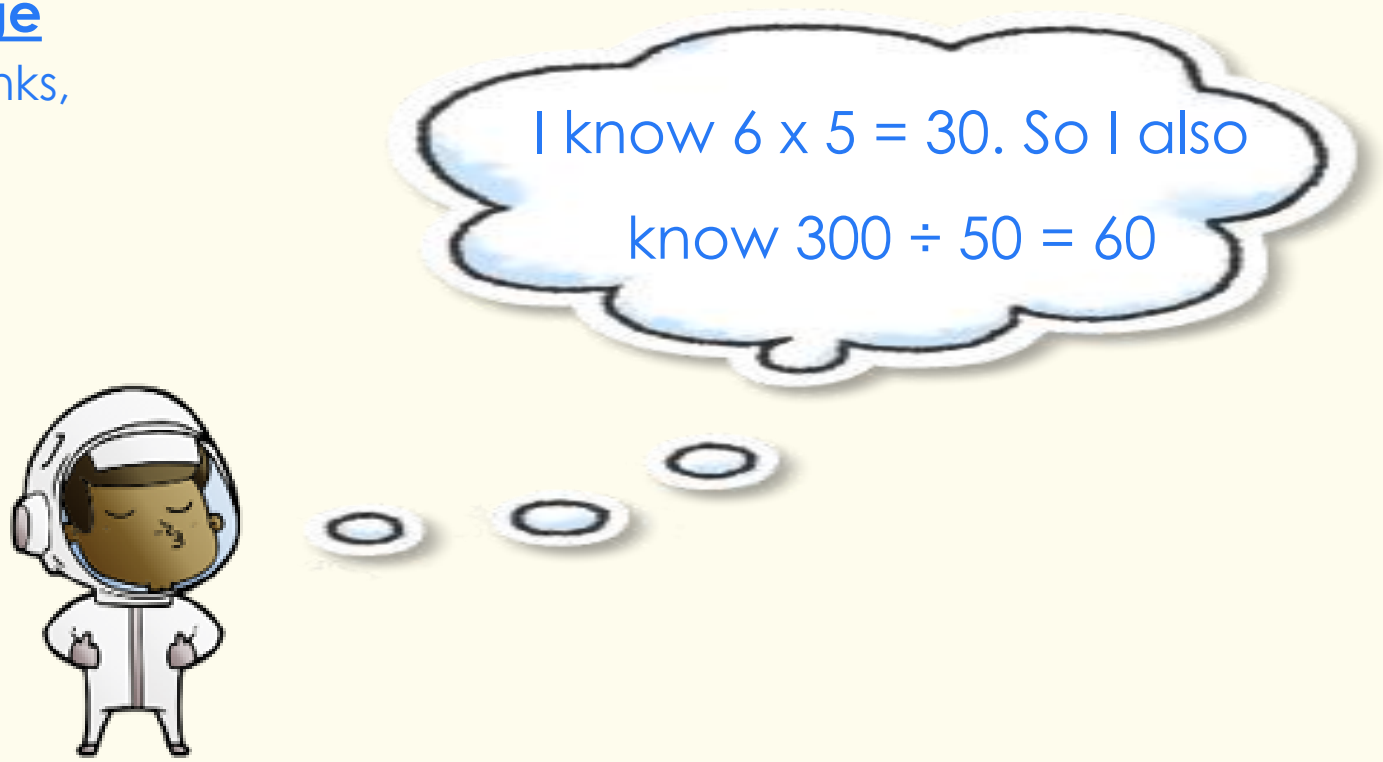
c. Teacher C needs 300 pencils

d. Teacher D needs 240 pencils

To use known multiplication facts to solve related calculations

Light Bulb Challenge

The mathstronaut thinks,



The mathstronaut is wrong.

300 ÷ 50 = 6

We can prove he is incorrect by taking the mathstronaut answer and using the inverse operation 50 x 60 does not equal 300.

Answers