

Finding 15

Tim had nine cards, each with a different number from 1 to 9 on it. He put the cards into three piles so that the total in each pile was 15. How could he have done this?

Can you find *all* the different ways Tim could have done this?

Hint: There have to be 3 piles of cards, but not necessarily 3 cards in each pile!

Remember to work systematically and record all the possibilities you find.

Would it help you to make the cards from scrap paper?

Use Whitney's method to work out these divisions.

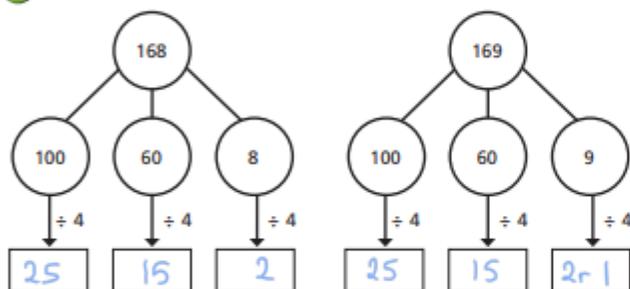
a) $585 \div 5 = 117$

c) $648 \div 4 = 162$

b) $672 \div 6 = 112$

d) $847 \div 7 = 121$

6 Complete the part-whole models and divisions.



$168 \div 4 = 42$

$169 \div 4 = 42r1$

What is the same and what is different about the calculations?

Talk about it with a partner.

7 Complete the divisions.

a) $258 \div 6 = 43$

c) $864 \div 4 = 216$

b) $623 \div 5 = 124r3$

d) $824 \div 3 = 274r2$



8 Eva has a piece of ribbon.

The ribbon measures 839 cm long.



How much ribbon would be left over if she cuts it into:

a) 4 equal pieces

3 cm

b) 6 equal pieces

5 cm

c) 8 equal pieces

7 cm

Can Eva cut the ribbon into equal pieces with no ribbon left over?

No

Explain your answer.

9 Use 15 counters and a place value chart.

a) Make a number that is divisible by 3

b) Make a number that has a remainder of 1 when divided by 3

c) Make a number that has a remainder of 2 when divided by 3

Create your own problem like this for a partner.



