

Understand it!
Sometimes in division there are some left over.

Maria has 20 chilli plants to place in 3 rows. She has to plant the same number in each row. How many plants will go in each row? How many are left over?

Dividing with Remainders

What happens when some are left?



3 rows of plants

Mental Computation

Use +, - or \times to make each equation equal.

- 1 $3 \times 4 = 10$ 2 $8 \times 9 = 82$ 3 $9 \times 3 = 28$ 4 $56 - 2 = 6$
- 5 $11 \square = 30$ 6 $35 \square = 6$ 7 $11 \square = 30$ 8 $1 \square = 6$

Guided Practice

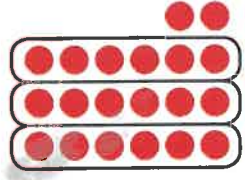
Find how many items are in each group and how many are left over. Use counters or draw pictures.

- 7 26 pens, 5 groups 8 34 cars, 7 boxes
- 9 30 marbles, 4 bags 10 40 balls, 6 bins

Reasoning

- 11 Pippa's teacher has 27 drawings to arrange on the wall in 4 equal rows. Pippa said if he does this there will be 7 drawings left over. Is this reasonable? Explain.
- 12 Does 4 divide into 25 evenly? Draw a picture to explain your answer.

Divide 20 counters among 3 rows.



$3 \times 6 = 18$ counters

The part that is left after dividing is called **the remainder**.

There are 2 counters left over. This is not enough for another row, so the remainder is 2.



Independent Practice

Complete these equations to make them true. Use counters to help you.

- 13 $13 \div \square = 4$ remainder 1
- 14 $23 \div \square = 5$ remainder 3
- 15 $18 \div \square = 3$ remainder 3
- 16 $43 \div \square = 5$ remainder 3

Problem Solving



17a Noise music store is having a sale. If you buy six CDs, you get them at half price. The store has 429 CDs to sell. How many groups of 6 CDs could be sold at the sale price and how many would be left over to be sold at the regular price?

b If the offer of half price was for buying 3 CDs, would there be any left over?

Check your answer.
 $3 \times 6 = 18$, and $18 + 2 = 20$
Maria can plant 6 plants in each row. She will have 2 plants left over.

Divide: 3 groups of 6 in 20
 $3 \overline{)20}$
6r2