

Equality and the balance

MODULE 8 · ALGEBRA — PATTERNS, EXPRESSIONS AND EQUATIONS

ALGEBRA

HOW TO ANSWER TODAY

- **Solve for x.** Do the OPPOSITE operation to both sides. + becomes -; × becomes ÷.

$$x + 7 = 15 \rightarrow x = 15 - 7 = 8 \quad 3x = 21 \rightarrow x = 21 \div 3 = 7$$

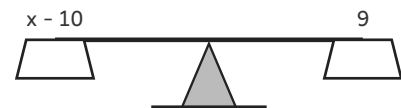
★ STRETCH PROBLEMS

- 1 For Halloween, 5th class bake 4 identical barmbracks and use 92 raisins in total. Each barmbrack gets the same number of raisins. How many raisins go into each one?



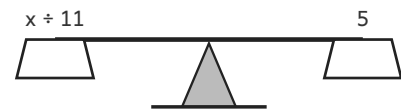
Find x so the scale balances.

- 2 The 5th class library had x books on the shelves on Monday morning. During the week, 10 books were borrowed and the shelves were left with 9 books. How many books were on the shelves on Monday?



Find x so the scale balances.

- 3 Aoife is sorting the reading books for the school-bag rota. The books are shared equally between 11 pupils and each pupil gets 5 books. How many books are there in total?



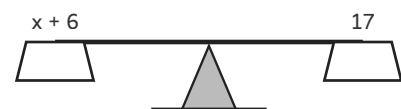
Find x so the scale balances.

- 4 Mr Ó Briain is counting worksheets in the photocopier room for tomorrow's maths lesson. After he hands 8 worksheets to the 5th class teacher next door, he has 14 worksheets left in his pile. If x is the number of worksheets he started with, then $x - 8 = 14$. What is x?



Find x so the scale balances.

- 5 Cian is feeding ducks at the local pond. He has some pieces of bread already, and after he throws in 6 more pieces there are 17 pieces floating on the water. How many pieces did he start with?



Find x so the scale balances.