

Turning a word problem into a number sentence

CURRICULUM ALIGNMENT

ALG.EXP.3 represent and express problems with known and unknown values in different ways to include the use of appropriate letter-symbols or words.

INTERACTIVES Balance Scales · challenge, display, explore

WHAT THIS LESSON TEACHES

A short story can be written as a number sentence with a box standing for the one number we do not yet know. Listen for action words like more or gave away to choose + or -.

→ Aoife had 8 marbles and won some more to make 15 becomes $8 + \square = 15$.

→ Tom had 12 sweets and gave away 5 becomes $12 - 5 = \square$.

MODEL THIS ON THE BOARD

SAOIRSE AND HER STICKERS

- 1 Read the family story: Saoirse had some stickers. She got 4 more. Now she has 10 stickers.
- 2 The words 'got more' tell us to add. The start amount is unknown so we use a box.
- 3 Say the number sentence out loud: $\square + 4 = 10$.
- 4 Find what fills the box so the balance beam hangs level: the box is 6 because $6 + 4$ makes 10.

ANSWER KEY

a) 9

b) 6

c) 7

Q1: 9

Q2: 7

Q3: 6

Q4: 8

a) **Always** : Those signal words always point to adding the known parts around the unknown.

b) **Always** : We write the box for the missing number in the story.

c) **Sometimes** : True for 'Gran gave 5 and Dad gave 3'; false for 'Tom gave away 4', which uses a minus sign.

d) **Sometimes** : True for $4 + 5 = \square$; false for $\square + 5 = 9$.