

Equivalent expressions ($4 + 4 + 4 = 3 \times 4$)

WHAT THIS LESSON TEACHES

Repeated addition of the same number is the same as multiplying that number by how many times it appears. So $4 + 4 + 4$ matches 3×4 because both make the same total.

→ $4 + 4 + 4 = 3 \times 4$

→ $2 + 2 + 2 + 2 = 4 \times 2$

MODEL THIS ON THE BOARD

BALANCING THREE LOTS OF FOUR

- 1 Look at the repeated addition $4 + 4 + 4$.
- 2 Count how many fours there are: there are 3 groups.
- 3 Write the matching multiplication as 3×4 .
- 4 Both sides equal 12 so the expressions are equivalent.

DISCUSSION STARTER

REFLECT Which feels shorter — repeated addition or a times sentence? Why?

ANSWER KEY

Scaffold: visual check on the page

Q1: 5×2

Q2: 4×3

Q3: $3 + 3 + 3$

a) Always — Both sides total 12 so they are always equivalent.

b) Always — That is the definition of this equivalent expression.

c) Never — Left side is three fives but right side is only two fives.

d) Always — That is exactly what equivalent expressions let us do.

EXTENSION SHEET · STRETCH ANSWERS

S1: 68

S2: 94

S3: 32