MATHS • NUMBER

YEAR 8

Simplifying Square Roots

Find the largest perfect-square factor and write each answer in simplest radical form.

Name _____ **Date** _____

> **Remember:** look for the largest perfect square that divides the number under the root. Take its square root outside the radical.

1. Find the square factor

COMPLETE BOTH SPACES

For each root, write its largest square factor and then its simplest form.

Root	Largest square factor	Simplest form
√12		
√18		
√50		
√72		
√98		

2. Simplify

WRITE EACH ANSWER IN SIMPLEST RADICAL FORM

√32	√63	√80
√112	√125	√180

3. Reasoning challenge

A student writes √72 = 3√8. Is this in simplest radical form? Explain your reasoning, then write the expression in simplest form.

_____

_____

☐ Check: no square factor greater than 1 remains under any root.