Simplifying Surds

1

Write 32 as its largest square factor × another number.

4, 16

32 = ☐ × ☐

2

Write 108 as its largest square factor × another number.

4, 9,

108 = ☐ × ☐

3

Write 75 as its largest square factor × another number.

75 = ☐ × ☐

4

Write 63 as its largest square factor × another number.

63 = ☐ × ☐

5

Simplify $\sqrt{12}$

$\sqrt{12} = \sqrt{4} \times \sqrt{3}$

$= \square\sqrt{\square}$

Answer _____

6

Simplify $\sqrt{28}$

$\sqrt{28} = \sqrt{4} \times \sqrt{\square}$

$= \square\sqrt{\square}$

Answer _____

7

Simplify $\sqrt{80}$

$\sqrt{80} = \sqrt{\square} \times \sqrt{\square}$

$= \square\sqrt{\square}$

Answer _____

8

A square has an area of 98 cm².
Find the length of one side as a surd in its simplest form.

98 cm² ?

Answer _____

Simplifying Surds *further practice*

9

Simplify $\sqrt{20}$

Answer _____

10

Simplify $\sqrt{27}$

Answer _____

11

Simplify $\sqrt{300}$

Answer _____

12

Simplify $2\sqrt{18}$

Answer _____

13

Simplify $5\sqrt{8}$

Answer _____

14

Write $3\sqrt{5}$ as the square root of a single number.

Answer _____

15

Which is bigger, $2\sqrt{7}$ or $3\sqrt{3}$?
Show how you know.

Answer _____

16

Sam says $\sqrt{32} = 2\sqrt{8}$.
Is Sam's answer in its simplest form?
Explain how you know.

Answer _____