

SURDS

Name:

BAM Indicator: Simplify surds, including rationalising the denominator of a surd expression

1. Lily writes

$$\sqrt{48} = \sqrt{16 \times 3} = 4 \times 3 = 12$$

Lily is incorrect.

Explain what Lily has done wrong. Correct her answer.

M

2. a) Simplify fully:

i. $\sqrt{50}$ _____

ii. $\sqrt{108}$ _____

iii. $\sqrt{\frac{36}{64}}$ _____

iv. $\sqrt{\frac{7}{25}}$ _____

F

b) Rationalise the denominator of these surds. Write the answers in their simplest form.

i. $\frac{12}{2\sqrt{3}}$ _____

ii. $\frac{12}{5-\sqrt{3}}$ _____

iii. $\frac{12+\sqrt{2}}{5-\sqrt{3}}$ _____

