

Stage 9 End of unit 1

The tests and mark schemes have been written by the authors. These may not fully reflect the approach of Cambridge Assessment International Education.

Answers

- 1 $\sqrt{27}$ and $\sqrt{2} \times 7$
(-1 mark for each error or omission) [2]
- 2 a The product is 10. This can be shown by using a calculator. [1]
b Any valid answer, e.g. $\sqrt{2}$ and $4 - \sqrt{2}$ [1]
- 3 a 1 [1]
b 256 [1]
c $\frac{1}{16}$ or 0.0625 [1]
- 4 Any valid answers. For example:
a $\sqrt{2}$ [1]
b $\sqrt{90}$ [1]
- 5 a 6.32×10^6 [1]
b 1.29×10^{-5} [1]
- 6 a 350 000 [1]
b y, z, x [1]
- 7 a True. $17^2 = 289$ and $18^2 = 324$ [1]
b False. $7^3 = 343 > 300$
(A reason is required for the mark) [1]
- 8 a 2^5 [1]
b 2^0 [1]
c 2^{-3} [1]
- 9 a 5^7 [1]
b 6^{-2} [1]

[Total: 20 marks]