

# Surds and indices

# Int 2 PP 2001 -2008

2005 P2

I  
10. (a) Express  $\frac{7}{\sqrt{2}}$  as a fraction with a rational denominator.

2

2006 P1

J  
9. Evaluate

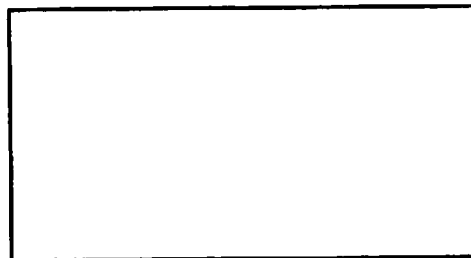
$$16^{\frac{1}{4}}$$

2

2006 P1

K  
10.

$2\sqrt{3}$  cm



$\sqrt{6}$  cm

The rectangle above has length  $2\sqrt{3}$  centimetres and breadth  $\sqrt{6}$  centimetres.  
Calculate the area of the rectangle.

Express your answer as a surd in its simplest form.

3

2007 P2

L  
12. Simplify the expression below, giving your answer with a positive power.

$$m^5 \times m^{-8}$$

2

2008 P2

M  
7. (a) Simplify

$$\frac{m^5}{m^3}$$

1

N  
(b) Express

$$2\sqrt{5} + \sqrt{20} - \sqrt{45}$$

as a surd in its simplest form.

3

# Surds and indices

# Int 2 PP 2001-2008

A

2001 P1

(b) Express  $\sqrt{18} - \sqrt{2} + \sqrt{72}$  as a surd in its simplest form.

3

B

2002 P1

7. (a) Express  $\sqrt{45} - 2\sqrt{5}$  as a surd in its simplest form.

2

C

2002 P2

11. (a) Simplify

$$6x^{\frac{3}{2}} + 2x^{\frac{1}{2}}$$

2

D

2003 P1

6. (a) Express  $\frac{\sqrt{40}}{\sqrt{2}}$  as a surd in its simplest form.

2

E

2003 P2

11. (a) Express

$$a^{\frac{2}{3}}(a^{\frac{1}{3}} - a^{-\frac{1}{3}})$$

in its simplest form.

2

F

2004 P1

(b) Express  $\sqrt{12} + 5\sqrt{3} - \sqrt{27}$  as a surd in its simplest form.

3

G

2004 P2

(c) Simplify  $\frac{3a^5 \times 2a}{a^2}$

3

H

2005 P1

5. Simplify

$$k^8 \times (k^2)^{-3}$$

2