

Indices Past Paper Answers Edexcel – None Calculator

1.

(a)		p^8	3	B1 for p^8
(b)		h^5		B1 for h^5
(c)		x^6		B1 for x^6

2.

(a)		$\frac{1}{10}$	1	B1 for 0.1 or $\frac{1}{10}$ oe
(b)		9	2	M1 for $(\sqrt[3]{27})^2$ or $\sqrt[3]{27^2}$ oe or $\sqrt[3]{27} = 3$ A1 cao
(c)	$\sqrt{75} = \sqrt{25 \cdot 3}$	$5\sqrt{3}$	2	M1 for $\sqrt{25 \cdot 3}$ or $\sqrt{25} \cdot \sqrt{3}$ oe A1 cao

3.

stion	Working	Answer	Mark	Notes
(a)		x^6	1	B1 cao
(b)		y^2	1	B1 cao
(c)		t^6	1	B1 cao

4.

(a)		1	1	B1 cao
(b)		$\frac{1}{16}$	2	M1 for two of cube root, square, reciprocal A1 cao

5.

(a)		a^7	1	B1 cao
(b)		b^{14}	1	B1 cao
(c)		1	1	B1 cao
(d)		$\frac{1}{4}$	1	B1 for $\frac{1}{4}$ oe

6.

Question	Working	Answer	Mark	Notes
(i)		1	3	B1 cao
(ii)		$\frac{1}{5}$		B1 for $\frac{1}{5}$ or 0.2
(iii)		3		B1 cao (accept ± 3)

7.

Question	Working	Answer	Mark	Notes
(a)		1	1	B1 cao
(b)		3	1	B1 cao
(c)		$\frac{1}{8}$	1	B1 for $\frac{1}{8}$ oe

8.

(c)		t^{11}	1	B1 cao
(d)		y^4	1	B1 cao
(e)		c^{12}	1	B1 cao

9.

(a)		1	1	B1 cao
(b)		$8x^{18}y^{-3}$	2	M1 for $2^3x^{3 \times 6}y^{3 \times -1}$ or $8x^{18}y^k$ ($k \neq 0$) Or $8x^k y^{-3}$ ($k \neq 0$) or $kx^{18}y^{-3}$ ($k \neq 0, k \neq 1$) or $2x^6y^{-1} \times 2x^6y^{-1} \times 2x^6y^{-1}$ A1 cao

10.

(i)		$\frac{1}{16}$	2	B1 for $\frac{1}{16}$ or 0.0625
(ii)		4		B1 cao

11.

(i)		1	4	B1 cao
(ii)	$\left(\frac{3}{1}\right)^2$ or $\left(\frac{1}{9}\right)^{-1}$	9		B1 cao
(iii)	$(16)^{\frac{3}{2}} = (\sqrt{16})^3$	64		B2 cao [B1 for $(16)^{\frac{3}{2}}$ or equivalent]