



EXAMINATIONS COUNCIL OF ESWATINI
Junior Certificate Examination

CONFIDENTIAL
October/November 2019

MARK SCHEME
MATHEMATICS 309/02
Paper 2

MAXIMUM MARK 100

Q	Answers	Mark	Notes	Total
1	(a) (i) $\pi, \sqrt{2}$	2		9
	(ii) 2, 19	2		
	(iii) $\sqrt{16}, 19$	2		
	(b) $\frac{25}{21+54}$	1		
	$\frac{25}{75}$	1		
	$\frac{1}{3}$	1		
2	(c) $2 \times 5 \times 5 = 2 \times 5^2$	2		6
	(b) 10	2		
	(c) 200	2		
3	(a) $\frac{14}{100} \times 9800$	2		5
	1372	1		
	(b) $9800 + 1372$	1		
	E11 172	1		

4	(a) $-3k = -6$ oe	1		9
	$k = 2$	1		
	(b) (i) $\frac{4h}{15}$	2		
	(ii) $\frac{3t^2}{2}$	2		
	(iii) $3p^3q^2 - 15p^2q^2 + 4p^2q^2 - 14q$	2		
$3p^3q^2 - 11p^2q^2 - 14q$	1			

5	(a) (i) $\frac{x}{5}$	1		11
	(ii) $\frac{4x}{5}$	3		
	(b) (i) $7 \times \frac{x}{5} = x + 50$ oe	2		
	(ii) $2x = 250$	2		
	$x = 125$	1		
	(c) $\frac{7 \times 4(125)}{5}$	1		
	(E) 700	1		

6	<p>(a) Triangular prism</p> <p>(b) correct net</p> <p>(c) $\frac{1}{2}(12)(5)(30)$ 900 (cm³)</p> <p>(d) 13</p> <p>$30(5) + 12(30) + 13(30) + 5(12)$ 960 (cm²)</p>	<p>1</p> <p>2</p> <p>2</p> <p>1</p> <p>2</p> <p>2</p> <p>1</p>		11
7	<p>(a) (i) -1</p> <p>(ii) -2</p> <p>(b) line correctly drawn passing through (4,9) and (-8,-3)</p> <p>(c) $x = -2$</p> <p>$y = 3$</p>	<p>1</p> <p>2</p> <p>3</p> <p>3</p>		9

8	(a) (i) $\frac{7}{11}$	2		
	(ii) $\frac{7}{11}$	1		
	(b) (i) 0.259	1		
	(ii) 0.625	1		
	(c) 2.85	2		
	(d) 58°	1		
(e) 8.00	2			
				11

9	(a) 11 , 18 , 14 , 4 , 13	5		
	(b) 66 , 108 , 84 , 24 , 78	5		
	(c) diagram accurately drawn	3		
	(d) (i) $\frac{18}{60}$ oe	1		
	(ii) $\frac{15}{60}$ oe	2		
				16

10	(a) 5.5 (km)	1		
	(b) 1 hour 15 min oe	2		
	(c) (i) 2 hrs 30 min	2		
	(ii) 1 hr 15 minutes	2		
	(iii) 02 30 (hrs) – 01 15 (hrs)	1		
	1 hr 15 min	1		
	(d) $\frac{4.5}{2}$ oe	2		
	2.25 (km/h) oe	1		
(e) 11 15 hrs	1			13