



**EXAMINATIONS COUNCIL OF SWAZILAND**

**CONFIDENTIAL**

**November 2018**

**JUNIOR CERTIFICATE EXAMINATION**

**MATHEMATICS PAPER 1**

**MARK SCHEME**

**MAXIMUM MARK 100**

## MARK SCHEME 309/01

Question	Answers	Marks	Comments
<b>1 (a)</b>	2, 3	1	
<b>(b)</b>	1, 8	1	
<b>2</b>	20.6	2	Allow B1 for incorrect rounding
<b>3</b>	$\frac{5m-3+3m}{15}$ oe	2	Allow M1 for $\frac{5m-3(1-m)}{15}$
	$\frac{8m-3}{15}$	1	
<b>4 (a)</b>	$\frac{21}{56} \times 100\%$ oe	1	
	37.5	1	
<b>(b)</b>	$\frac{40}{100} \times 35$	1	
	14	1	
<b>5</b>	$2a - 12 > 3a$ oe	1	M1 for clearing fraction
	$-12 > 3a - 2a$	1	M1 for collecting like terms
	$a < -12$	1	
<b>6 (a)</b>	Perpendicular	1	
<b>(b)</b>	Reflection, line UV/MV	2	
<b>7</b>	$60 \times 1.75$ o.e	1	
	105	1	
<b>8 (a)</b>	729	1	
<b>(b)</b>	$\begin{pmatrix} 4 & 1 \\ 8 & 1 \end{pmatrix}$	2	B1 for 3 correct elements
<b>9 (a)</b>	$320 = 50 + 3n$	1	
	90	1	
<b>(b)</b>	$5n = 50 + 3n$	1	
	$2n = 50$	1	
	25	1	
<b>10</b>	$\begin{pmatrix} 6 \\ -3 \end{pmatrix} - \begin{pmatrix} 2 \\ -6 \end{pmatrix}$ oe	1	
	$\begin{pmatrix} 4 \\ 3 \end{pmatrix}$	1	

<b>11(a)(i)</b>	$\frac{3}{12}$ oe	1	
<b>(ii)</b>	$\frac{2}{12}$ oe	1	
<b>(iii)</b>	$\frac{4}{12}$ oe	1	
<b>12 (a)</b>	$8.3 \times 10^{-3}$	1	
<b>(b)</b>	0.46	1	
<b>(c)</b>	$(0.25 + 1.75) \times 10^6$ oe	1	
	$2 \times 10^6$	1	
<b>13 (a)</b>	$2(2) + 2(x+3)$	1	
	$2x + 10$	1	
<b>(b)</b>	$2x + 10 = 20$	1	
	$x = 5$	1	
	$(l) = 8$	1	
<b>14 (a)</b>	Octagon	1	
<b>(b)</b>	Isosceles	1	
<b>(c)</b>	8	1	
<b>(d)</b>	$\frac{360}{8}$ oe	1	
	45	1	
<b>15 (a)</b>	$120 = \frac{1}{2} (20)(AD)$	1	
	12	1	
<b>(b)</b>	$\sqrt{(15^2 - \text{their} AD^2)}$	1	
	9	1	
<b>(c)</b>	$\frac{12}{11}$	1	

**SECTION B**

- 16. D
- 17. B
- 18. A
- 19. D
- 20. C
- 21. D
- 22. C
- 23. B
- 24. A
- 25. B
- 26. D
- 27. B
- 28. B
- 29. D
- 30. D
- 31. A

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