

N Level Paper 1 ANSWER

1.	<p>(a) 7.38×10^{-4}</p> <p>(b) 584 000</p>
2.	<p>(a) 7700 and 50</p> <p>(b) $7700 \div 50 = 154$</p>
3.	<p>(a) 3</p> <p>(b) 3</p>
4.	<p>$3x - y = 7$ ----- (1)</p> <p>$x - y = 4$ ----- (2)</p> <p>(1) - (2)</p> <p>$2x = 3$</p> <p>$x = 1.5$</p> <p>Sub $x = 1.5$ into (2)</p> <p>$1.5 - y = 4$</p> <p>$-y = 2.5$</p> <p>$y = -2.5$</p>
5.	<p>$2y = 3(1.2) + 7$</p> <p>$2y = 3.6 + 7$</p> <p>$2y = 10.6$</p> <p>$y = 5.3$</p> <p>$2y = 3x + 7$</p> <p>$3x = 7 - 2y$</p> <p>$x = \frac{7 - 2y}{3}$</p>
6.	<p>(a) $3x(1 + 4y)$</p> <p>(b) $(x - 6)(x - 2)$</p>
7.	<p>(a) $\frac{18x^2}{7} \div \frac{3x}{14}$</p> <p>$= \frac{18x^2}{7} \times \frac{14}{3x}$</p> <p>$= 12x$</p> <p>(b) $-8x + 12y + 5x - 6y$</p> <p>$= -3x + 6y$</p>

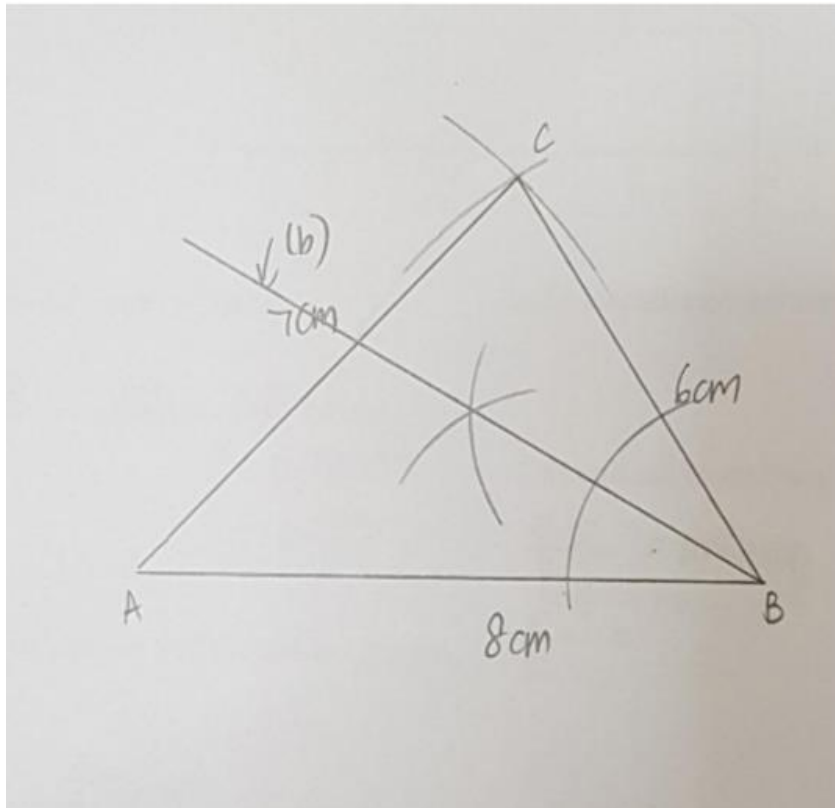
8.	<p>(a) S\$3 = 9.305 MYR</p> $\$200 = \frac{9.305}{3} \times 200$ $= \$620.33$ <p>(b) 9.305 MYR = S\$3</p> $109.40 \text{ MYR} = \frac{3}{9.305} \times 109.40$ $= \text{S}\$35.27$
9.	<p>(a) 40 000 : 10 000</p> <p style="padding-left: 40px;">4 : 1</p> <p>(b) Total Distance = 40 + 1.5 + 10</p> <p style="padding-left: 40px;">= 51.5 km</p> <p>Darren's speed = $\frac{51.5}{155/60}$</p> <p style="padding-left: 40px;">= 19.9 km/h (3sf)</p>
10.	<p style="text-align: center;">A : O : M</p> <p style="text-align: center;">3 : 1</p> <hr style="width: 20%; margin: auto;"/> <p style="text-align: center;">2 : 5</p> <hr style="width: 20%; margin: auto;"/> <p style="text-align: center;">6 : 2 : 5</p>
11.	<p>(a) 61°</p> <p>(b) 180° - 54° = 126°.</p> <p>(c) $\frac{JL}{32} = \frac{56}{35}$</p> <p>$JL = 51.2 \text{ cm}$</p>
12.	<p>(a) Area of 1 quadrant = $\frac{1}{4} \times \pi \times 6^2 = 9\pi \text{ cm}^2$</p> <p>Area of 1 semi-circle = $\frac{1}{2} \times \pi \times 3^2 = \frac{9}{2} \pi \text{ cm}^2$</p> <p style="padding-left: 40px;">$\frac{9}{2} \pi$</p> <p>Shaded area = $9\pi - \frac{9}{2} \pi = 14.137 \approx 14.1 \text{ cm}^2$</p> <p>(b) Perimeter = Length of outer arc + Length of inner arc + 6</p> $= \frac{1}{4} \times 2\pi \times 6 + \frac{1}{2} \times 2\pi \times 3 + 6$ $= 24.850$ $\approx 24.9 \text{ cm}$

13. (a) (0,2)

(b) $-\frac{3}{2}$

(c) $\text{area} = \frac{1}{2} \times 6 \times 3 = 9 \text{ units}^2$

14.



15. (a) $\text{Savings} = \frac{20}{100} \times 3000 = \600

(b) $\text{Total expenses} = 360.80 + 275.40 + 50(4) + 360 + 305.20 + 600$
 $= \$2101.40$

$\text{Balance of pay} = 3000 - 2101.40$
 $= \$898.60$

Diana should go for the staycation because she has enough money. She has a balance of \$898.60 left after her expenses.

(c) $\text{Percentage increase} = \frac{3350 - 3000}{3000} \times 100\% = 11.67\% \text{ (3sf)}$