

GRADE 8								
<u>1</u>	$x - 6$	$2x$	$2(x + y)$	6	14	$7;10;13;16$	$6x+14xy-4$	
<u>2</u>	$x = 4$	$x = 7$	$x = 2$	$x = -10$	$x = 8$	$x = 9$		
<u>3</u>	2	-2	-18	9	1	-30		
<u>4</u>	$2 : 3$	$1 : 6$	$3 : 5 : 4$	140	1652 km			
GRADE 9								
<u>1</u>	$2x + 6$	x^3+4x^2+8x	x^2+6x+8	$x^2+4x-12$	$9x^2-64$	x^2+6x+9		
<u>2</u>	$2x(3-2y)$	$(x-2)(5-m)$	$(x+3)(x-3)$	$(5+2x)(5-2x)$	$(x+2)(x+1)$	$(x-5)(x+2)$		
<u>3</u>	2^4	$9 \times 9 \times 9 \times 9 \times 9 \times 9 \times 9$	2^9	2^3	4^6	28300000		
<u>4</u>	$2x^3y$	$2 \cdot x \cdot x \cdot y \cdot y \cdot y$	$-12x^9$	$3x^3$	$-8x^{15}y^{12}$	x^{-6}		
GRADE 10								
<u>1</u>	18.33	31.26	20.2	$\sqrt{k^2 + 121}$				
<u>2</u>	$\sin a = 9/15 \quad \cos a = 12/15 \quad \tan a = 9/12 \quad \cot a = 12/9 \quad \sec a = 15/12 \quad \csc a = 15/9 \quad \sin b = 12/15 \quad \cos b = 9/15 \quad \tan b = 12/9 \quad \cot b = 9/12 \quad \sec b = 15/9 \quad \csc b = 15/12$							
<u>3</u>	3.92	13.86	30°					
<u>4</u>	$3/\sqrt{3}$	$\frac{1 + \sqrt{3}}{2}$	$\frac{\sqrt{3}}{2}$	$3/4$				
GRADE 11								
<u>1</u>	-1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{3}}{2}$	$1 + \frac{2}{\sqrt{3}}$			
<u>2</u>	$\sin 58^\circ$	$\cos 30^\circ$	1	$-\sin x$				
<u>3</u>	$-\sin a$	$\cos a$	$-\tan a$	$-\sin 3y$	$-\sin 50^\circ$			
<u>4</u>	$\text{LHS} = \text{RHS}$							
GRADE 12								
<u>1</u>	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{3}}{2}$	$\cos 6k$	$\cos 2y$			
<u>2</u>	$\frac{1}{2} \sin x$ $+\frac{\sqrt{3}}{2} \cos x$	$\frac{\sqrt{3}}{2} \cos x + \frac{1}{2} \sin x$	$\frac{1}{\sqrt{2}} \cos x$ $-\frac{1}{\sqrt{2}} \sin x$	$\sin 6x$	$2.9 \text{ error in question : } \cos 90 \cdot \cos 60 + \sin 90 \cdot \sin 60$ Answer: $\frac{\sqrt{3}}{2}$			
<u>3</u>	$\text{LHS} = \text{RHS}$							
<u>4</u>	$PQ = 54.95 \text{ cm}$	$\alpha \approx 29^\circ$						