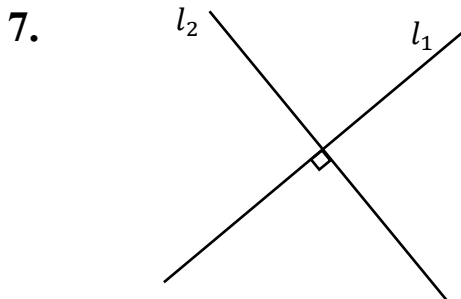


Year 09
Weekly Tutorial - 11

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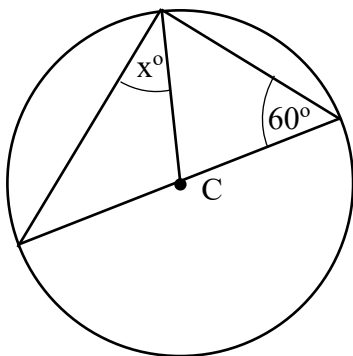
1. Solve and simplify. $(2x + 5)(x + 3)(x - 3)$
2. Solve $\frac{2}{3x-5} = \frac{1}{2x+7}$
3. Make t the subject $x = 5 - 2\sqrt{3t + 1}$
4. Simplify. $\frac{2}{\sqrt{3}-2} - \frac{1}{\sqrt{3}-3}$
5. Solve $\sqrt{5}(2x - 1) = 2 + x$
6. y is inversely proportional to cube x . When $x = 87$, $y = 12$. Find y , when $x = 150$. Give your answer correct to nearest whole number.



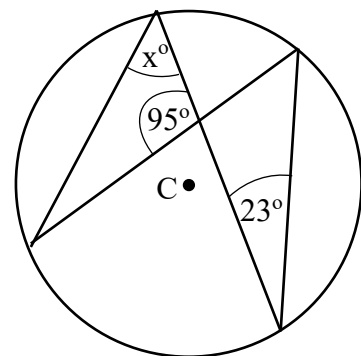
Line l_1 is perpendicular to l_2 .
 l_1 passes through points $(-3,1)$ and $(2,5)$.
 l_2 passes through a point $(3,1)$.
 Find the equation of the line l_2 .

8. Find the angle x° and y° . Give reasons

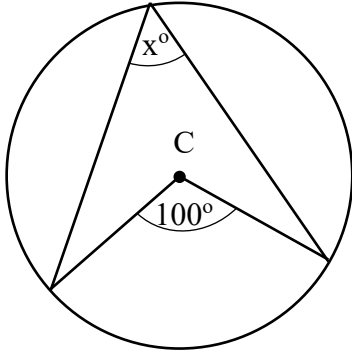
a)



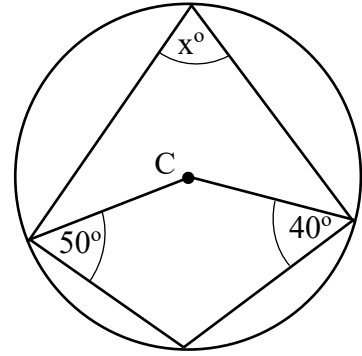
b)



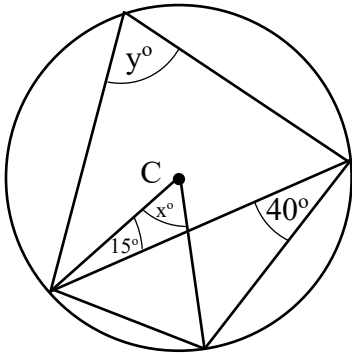
c)



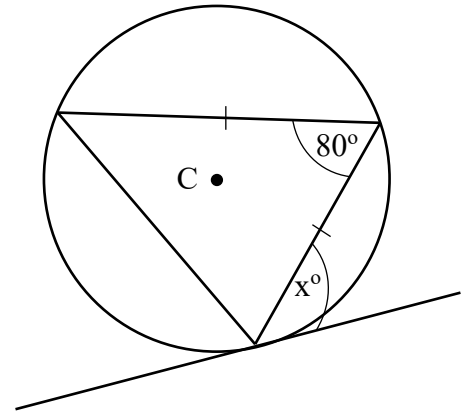
d)



e)



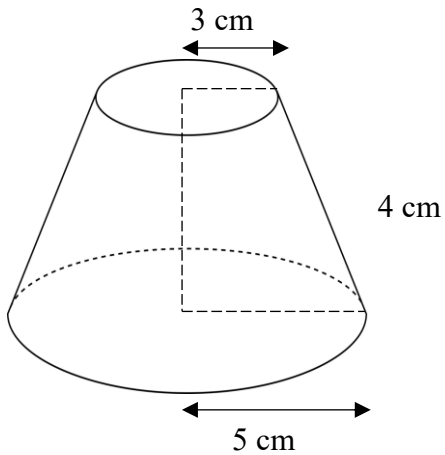
f)



9. Rationalize the denominator,

$$\frac{3\sqrt{5}-2}{(\sqrt{5}-1)^2}$$

10.



Find the total surface area of the frustum.
Give the answer correct to 1 dp.