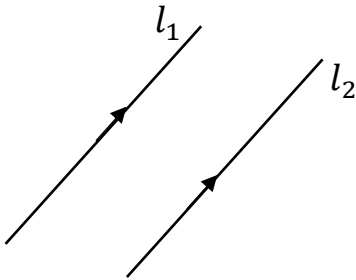


Year 09
Weekly Tutorial - 14

mathsalpha.com

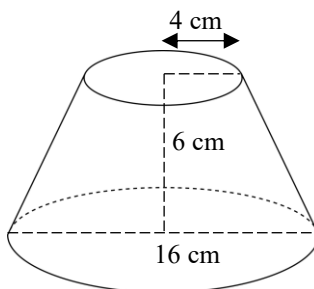
1. Solve; $\frac{3}{2}(x + 5) = 2(x - 3)$
2. Solve by factorization; $6x^2 - 7x - 5 = 0$
3. Make x the subject; $y = \sqrt{\frac{2(x-3)}{5+x}}$
4. Rationalize the denominator, $\frac{\sqrt{48+3}}{\sqrt{27-3}}$

5.



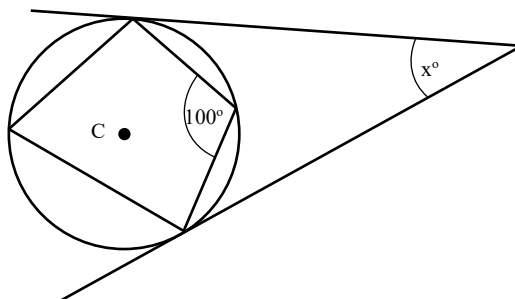
l_1 and l_2 are parallel lines. l_1 passes through a point $(-2, 3)$. l_2 has equation $3y + 2x - 1 = 0$. Find the equation of line l_1 .

6.



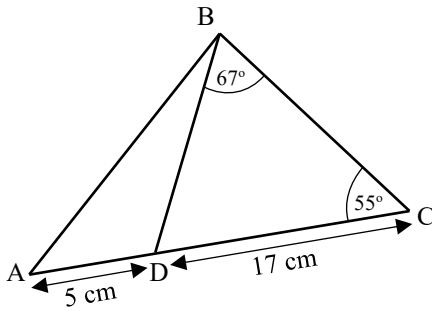
Find the curved surface area of the frustum. Give the answer correct to 1 dp.

7.



C is the centre of the circle. Find the angle x° . Give all reasons for your answer.

8.



$$AD = 5\text{ cm}$$

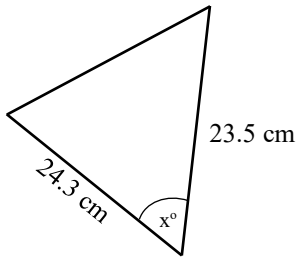
$$DC = 17\text{ cm}$$

$$\angle DBC = 67^\circ$$

$$\angle DCB = 55^\circ$$

Find the length AB , correct to 1 dp.

9.



Find the angle x° , if the area of the triangle is 268.3 cm^2 .

10. The captain of a ship sees a boat 50 km away on a bearing of 110° from the ship. There is also a lighthouse 85 km away on a bearing of 230° from the ship. Find the distance between the boat and the lighthouse.