December Daily Tasks Days 8 - 14

- 8. Solve $3\cos x^{\circ} + 2 = 0$ for $0^{\circ} \le x \le 360^{\circ}$
- 9. A candle in the shape of a cube with sides 9cm is remoulded into a cone with a radius of 5cm.

Calculate the height of the remoulded candle.

10. A rocket travels around an orbit at an average speed $3.25 \times 10^{11} \, \text{km}$ per hour. Its mission is expected to last 30 days.

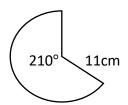
Calculate the total distance travelled by the rocket.

Give your answer in scientific notation, correct to 3 significant figures.

- 11. Solve $2x^2 6x 1 = 0$, correct to 1 decimal place.
- 12. Express as a single fraction in its simplest form.

$$\frac{5}{2x-1} - \frac{4}{3x+4}$$

13. Calculate the area of the sector below.



14. The shape below is made of 3 congruent sectors with radius 6cm and a height of 18cm. Calculate its total length, l cm

