Show all your working and label your answer clearly.

1. Given $\cos(\frac{17\pi}{12}) = -\frac{\sqrt{3}-1}{2\sqrt{2}}$, find another angle θ between 0 and 2π such that

$$\cos(\theta) = -\frac{\sqrt{3}-1}{2\sqrt{2}}$$

2. Given $\sin(\theta) = 0.2$ with θ in the second quadrant, find $\cos(\theta)$ and $\tan(\theta)$.

3. A winch on a sailboat has a diameter of 20cm. To take up 3m of slack, how many times do you need to rotate it?