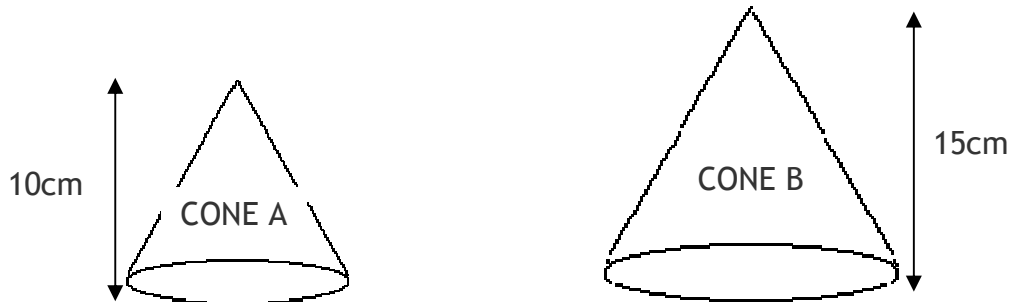


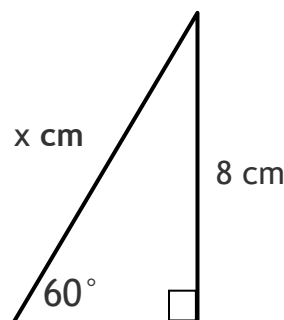
HIGHER Practice paper E

- Solve the inequality  $6 < 2m < 14$  and sketch the solution on a number line.
- Decrease 360g by 15%
- Factorise (a)  $k^2 + 3k$  (b)  $k^2 + 10k + 24$
- Two cones are similar.  
The height of cone A is 10cm. The height of cone B is 15cm.  
The volume of cone A is  $200\text{cm}^3$ . Find the volume of cone B.



- James invests £1400 for 3 years at 4% per year compound interest.  
**What is the total investment worth?**
- A special packet of breakfast cereal contains 15% more than a normal packet.  
The special packet contains 800 g of cereal. How much cereal does the normal packet contain?
- Explain why a triangle with sides 5cm, 12cm and 13cm *must* be a right angled triangle?

- Find the value of  $x$  in this triangle.



- Make  $t$  the subject of the formula  $\frac{10}{t^2} = k$

- Solve by elimination, the following simultaneous equations

$$\begin{aligned} 3x + 10y &= 2 \\ x + 12y &= 5 \end{aligned}$$