

# **M8 =23 days to go!**

5 A one gram bag of seed contains half a million seeds.

If each seed weighs the same, calculate the weight, in grams, of one seed.

Give your answer in standard form.

Answer \_\_\_\_\_ g [3]

**11**  $(-3, 4)$  is a point on the circle  $x^2 + y^2 = 25$

**(a)** Show that the equation of the tangent to the circle at this point is  $4y = 3x + 25$

[4]

**(b)** Find the coordinates of the points of intersection of this tangent and the curve  
 $y = x^2 + 6$

Answer \_\_\_\_\_ [6]