Year 10 Homework – Ratio etc

1) (a) A plank of wood 240cm long weighs 3.9kg.
   (i) How much would a plank of the same wood 320cm long weigh?
   (ii) How long would a piece of wood be which weighed 6.5kg?

   (b) My car travels 64km on 5 litres of petrol.
   (i) How far would it travel on 7 litres?
   (ii) How many litres would it use on a journey of 160km?

   (c) A concrete mixture contains gravel and sand in the ratio 3:5. What
   mass of gravel is there is a 40kg sack of the mixture?

2) A team of 12 painters can paint the Humber Bridge in 20 days.
   (a) How long would it take 1 painter?
   (b) How long would it take 16 painters?
   (c) If the job is to be completed in 15 days, how many painters are
   required?

3) My map of Oxfordshire has a scale of 1:25000.
   (i) If the distance from Islip to Beckley is 18cm on the map, what is
   the actual distance in km?
   (ii) If the distance from Eynsham to Woodstock is 7.5 km, how far
   will the distance be on the map?
   (iii) The map measures 40cm by 80cm. What area of ground does
   the map cover?

4) The rate of exchange between sterling and euros is 1 euro to £0.67.
   (a) How many Euros could I get in exchange for £75 ?
   (b) How many pounds could I get in exchange for 80 Euros?
   (Give answers to the nearest penny or cent.)