1. Simplify these ratios.

   a $4:2$ **b** $8:6$ **c** $8:12$ **d** $5:15$

   e $16:24$ **f** $18:27$ **g** $30:72$ **h** $33:6$

   i $21:56$ **j** $35:21$ **k** $21:28:35$ **l** $49:63:14$

2. Each pair of ratios is equivalent. Work out the values of the letters.

   a $1:2 = 3:x$ **b** $7:21 = p:42$ **c** $2:5 = n:25$

   d $15:y = 45:18$ **e** $a:9 = 40:72$ **f** $6:18 = 5:b$

   g $1:2:3 = 5:m:n$ **h** $3:5:6 = p:30:q$ **i** $d:3:7 = 16:12:e$

3. A model car is made to a scale of $1:50$.

   a The model has a length of $10\,\text{cm}$.
      Calculate the length of the real car.
      Give your answer in metres.

   b The real car has a height of $1.75\,\text{m}$.
      Calculate the height of the model car.