Ratio and direct proportion

1. For a certain concrete mixture sand and cement are mixed in the ratio 4 : 3.
   In one batch there are 32 bags of sand.

   How many bags of cement are required? [2]

2. The ratio of males to females in a club is 2 : 5. If there are 6 male members, how many members are there altogether in the club? [2]

3. Michael & David win £1600 on the lottery and are going to split it in the ratio 3:5.
   How much does each get? [4]

4. Jafar's heart beats at the rate of 84 beats per minute. How many beats will it make in 5 minutes? [2]

5. A jet can cover a distance of 2436 miles in 3·5 hours. What is its rate of travel in **miles per hour**? [2]

6. Jack drives 400 km in 5 hours. At the same rate, how far could he drive in 8 hours? [2]

7. Paula paid £22 for 40 litres of petrol. How much would she pay for 47 litres? [2]

[16 marks]