Duncanrig Secondary School – Mathematics Department

S3 Level 3/4: Homework 10

1. Multiply out the brackets and simplify:
   (a) $22a + 5(4 - 3a)$ (b) $7(x + 3) - 10x$

2. Solve:
   (a) $6x + 11 = 3x + 35$ (b) $5(2x - 7) \leq 12$

3. Andrew received £12 pocket money each week.
   His dad gave him a rise of 15%.
   What was his new pocket money?

4. Stuart bought a mobile phone for £125.
   He sold it a few months later for £80.
   Calculate his loss as a percentage of what he paid for the phone.

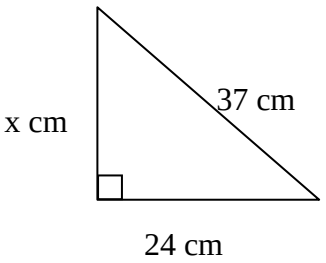
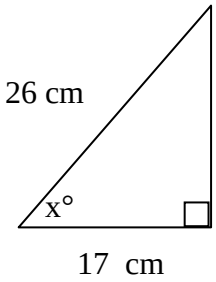
5. A truck travelled 90 miles at an average speed of 40 miles per hour.
   How long in, in hours and minutes, did it take to complete the journey?

6. David, in 3rd year, scored 48 out of 80 in his English exam.
   His sister Laura, a 2nd year pupil, got 16 out of 25 in her English exam.
   By changing both marks to percentages, find out who gained the better mark.

7. George works as a road digger for Lothian Council.
   His basic hourly rate is £9.80.
   Calculate:
   (a) his basic pay for a 37 hour week.
   (b) his overtime rate of pay at time and a half.
   (c) his total pay for a week in which he works his normal 37 hours but also puts in 9 hours overtime.

8. Sketch each of the following triangles and calculate x.

(a)



(b)