22. The two shapes shown below are mathematically similar.

 If the area of the smaller shape is 240 cm^2, work out the area of the large shape.

8cm   20cm

23. Two university need to buy some notepads.

 Angela buys 3 plain pads and 2 lined pads. She pays £22.50

a) Write an equation to represent this information.

 Victoria buys 2 plain pads and 4 lined pads. She pays £28.20.

b) Write a second equation to represent this information.

c) Solve these equations to find the cost of one plain pad and the cost of one lined pad.

24. Solve $2Cos\,x + 1 = 0$ for $0° < x < 360°$

25. Show clearly that $\sin x.\tan x.\cos x + \cos^2 x = 1$

26. A function has equation $f(x) = 5x + 12$. If $f(a) = 37$, find the value of a.

27. Change the subject of the formula below to T.

$$V = \frac{2T^2 + 1}{5}$$

28. A function has equation $f(x) = 27x^{\frac{2}{3}}$. Show clearly that $f(8) = 108$.