Finance: Revenue, Costs and Profit
CALCULATIONS

Revenue = Price x Quantity

Calculate the revenue when;
1. You sell 100 pairs of socks for £3.99.
2. You sell 6 cases of Coca Cola for £15.60.
3. You have 52 customers who buy your newly designed trainers – half of the customers buy the standard pairs for £24.99, but half choose to customise them, and pay £32.99 per pair.
4. You sell 34 printed t-shirts, which normally sell for £7, but the first 12 customers received a discount of 30%.
5. You set up a market stall selling phone accessories. You sell 24 iPhone cases at £2.50 each. You sell 15 extending chargers for £4.60 each and 8 extra battery packs for £16 each.

Total costs = Fixed costs + Variable costs
(Remember, you may need to multiply the variable cost by the number of products)

Calculate the total costs when;
1. You rent a market stall, which costs you £50 for the day. You are selling candles, each candle cost you £2.20 to make. You have printed some banners and posters for promotion which cost you £14.70. At the end of the day, you have made and sold 55 candles.
2. a. You decide to start selling your candles online, you pay £200 for internet design, domain name and hosting. You have also found a slightly cheaper supplier for your materials to make the candles, so now each one costs you £1.90 to make. When candles are ordered it costs you 80p per candle for postage and packaging. In the first week you sell 120 candles.
   b. After a whole month of selling candles, you have sold 1,080. Sales were helped by the fact that you did some advertising which cost you £430 in total. What were your total costs at the end of month 1?
3. a. On the run up to Christmas, you start selling Christmas stockings. There are two sizes, a 30 centimeter stocking or a 1-metre-tall stocking. You buy the stockings from an online wholesaler. They sell in boxes of 12 stockings. You decide to order 60 of the 30cm stockings and 48 of the 1m stockings. The 30cm stockings cost £42 per box and the 1m stockings cost £72 per box. What is the total cost of buying the stockings?
   b. As well as buying the stockings you also have to pay for packaging, this costs you £0.25 per stocking that you sell, and the stall you have rented to sell them on cost you £45. What are your total costs?

Profit = Revenue – Total costs

1. a. You made cupcakes. Each cupcake costs you 25p in ingredients and 15p for the clear packaging and ribbon. You sell each cupcake for £1.00. How much profit do you make if you sell 44 cupcakes?
   b. What about if you sell 122 cupcakes?
2. a. You make and sell cases for iPads. You make cases for the iPad air and the iPad mini. It costs you £2.20 to make the case for the air and £2.00 to make the case for the mini. You also had to buy some equipment, which cost you £77. The website you sell them through charges you commission of 10% on all sales. In September you sold 56 iPad air cases for £12 each and 67 iPad mini cases for £10 each. How much profit did you make?
   b. In October, you sold 67 air cases and 110 mini cases, how much profit did you make?
   c. In November, you sold 123 air cases and 155 mini cases, how much profit did you make?
   d. In December you ran a promotion offering a 20% discount on all cases, you sold 311 air cases and 247 mini cases. How much profit did you make?

Answers
CALCULATIONS

Revenue = Price x Quantity

1. 100 x 3.99 = £399
2. 6 x 15.60 = £93.60
3. £649.74 + £857.74 = £1,507.48
4. (12x4.90) + (22x7) = 58.80 + 154 = £212.80
5. (24x2.50) + (15x4.60) + (8x16) = 60 + 69 + 128 = £257

Total costs = Fixed costs + Variable costs

1. 50 + (2.20 x 55) + 14.70 = £185.70
2. a. 200 + ((1.90 + 0.80) x 120) = £524
   b. 200 + ((1.90 + 0.80) x 1,080) + 430 = £3,546
3. a. (42 x 5) + (72 x 4) = £498
   b. ((60 + 48) x 0.25) + 45 + 498 = £570

Profit = Revenue – Total costs

1. a. ((1.00 – (0.25+0.15)) x 44 = £26.40
   b. ((1.00 – (0.25+0.15)) x 122 = £73.20
2. a. Revenue = (56 x 12) + (67 x 10) = 1,342
       Costs = (56 x 2.20) + (67 x 2.00) + 77 + (1,342 x 0.10) = 123.20 + 134 + 77 + 134.20 = 468.40
       Profit = 1,342 – 468.40 = £873.60
   b. Revenue = (67 x 12) + (110 x 10) = 1,904
       Costs = (67 x 2.20) + (110 x 2.00) + (1,904 x 0.10) = 147.40 + 220 + 190.40 = 557.80
       Profit = 1,904 – 557.80 = £1,346.20
   c. Revenue = (123 x 12) + (155 x 10) = 3,026
       Costs = (123 x 2.20) + (155 x 2.00) + (3,026 x 0.10) = 270.6 + 310 + 302.60 = 883.20
       Profit = 3,026 – 883.20 = £2,142.80
   d. Revenue = (311 x 9.60) + (247 x 8) = 4,961.60
       Costs = (311 x 2.20) + (247 x 2.00) + 4,961.6 x 0.10) = 684.20 + 494 + 496.16 = 1,674.36
       Profit = 4,961.6 – 1674.36 = £3,287.24