



1. **a**) 24 - 16 = 8 silver medals.

- **(b)** 1994 & 2002, they won 6 Gold medals.
- c) 196 172 = 24 medals were won in 2014.
- (d) $^{24}/_{196} \times 100 = 12.2\%$

2.
$$360 - (67 + 90 + 21 + 112) = 360 - 290$$

= 70°

 $^{70}/_{360}$ x 3780 = 735 customers

3. a) 75:105:180

5: 7:12

(b) $7500 \times 105 = 787500$

 $^{787500}/_{2977500}$ x 100 = 26.45%

c)
$$(12 \times 180) + (50 \times 105) + (104 \times 75) = 15210$$

$$(12 \times 240) + (50 \times 140) + (104 \times 100) = 20280$$

Profit =
$$20280 - 15210$$

= £5070

d) $640 \div 7 = 91.43$ kg

e) Small: $125 \div 250 = 0.5 \text{p/ml}$

Medium: $235 \div 500 = 0.47 \text{p/ml}$

Large: $345 \div 675 = 0.51 \text{p/ml}$

The medium drink is the best value as it has the lowest price per ml.

- **4. a)** A Strong positive correlation exists.
 - **b)** Fred is 113 over 78 (approximate values we will accept answers within the range \pm 2)
 - c) i) Bob has High Blood Pressure
 - ii) Fred has Ideal Blood Pressure
 - **iii**) Bob is more likely to have heart problems in the future.

c)
$$458 \div 20 = 22.9$$
 miles. Yes since $22.9 > 19.8$.

d)
$$22.9 + 3.1 = 26$$
 miles

6. a)
$$P(2) = \frac{1}{5}$$

b)
$$P(5) = \frac{1}{6}$$

c)			Red Spinner					
			1	2	3	4	5	6
	er	1	2	3	4	5	6	7
	Yellow Spinner	2	3	4	5	6	7	8
		3	4	5	6	7	8	9
	ellov	4	5	6	7	8	9	10
	X	5	6	7	8	9	10	11

d)
$$P(9) = {}^{3}/_{30}$$

= ${}^{1}/_{10}$

e)
$$P(6) = \frac{5}{30}$$

= $\frac{1}{6}$

Nuber of 6's =
$$\frac{1}{6}$$
 x 72
= 12