Sharing prize money 2 - answers

1. Five people split a winning in the ratio of:

David		Marie		Winston		Sheila		Steve
5	:	**3**	:	**3**	:	**2**	:	**2**

    These parts add up to 5 + 3 + 3 + 2 + 2 = 15.
    To find out how much they won, first divide the total winnings by 15:
    £2,250 645 ÷ 15 = £150,043.
    To find out each person's share multiply this by the number of parts or lines they had:

    David = £150,043 × 5 **= £750,215** Marie = £150,043 × 3 **= £450,129**
    Winston = £150,043 × 3 **= £450,129** Sheila = £150,043 × 2 **= £300,086**
    Steve = £150,043 × 2 **= £300,086**

2. Calculate the ratio of the money invested.
    Dealer A has invested £180,000 and Dealer B has invested £120,000.
    The ratio is 180,000:120,000.
    Simplify the ratio by dividing both parts by 60,000 to give a ratio of 3:2 and a ratio of 5 parts.
    To work out how profit and loss is shared divide the total by 5 and then multiply by 3 for Dealer A's share and by 2 for Dealer B's share.

	Dealer A	Dealer B
a. £70,000 ÷ 5 = £14,000	£14,000 × 3 = **£42,000**	£14,000 × 2 = **£28,000**
b. £8,000 ÷ 5 = £1,600	£1,600 × 3 = **£4,800**	£1,600 × 2 = **£3,200**
c. £306,000 ÷ 5 = £61,200	£61,200 × 3 = **£183,600**	£61,200 × 2 = **£122,400**
d. £144,620 ÷ 5 = £28,924	£28,924 × 3 = **£86,772**	£28,924 × 2 = **£57,848**
e. £18,080 ÷ 5 = £3,616	£3,616 × 3 = **£10,848**	£3,616 × 2 = **£7,232**

3. To work out the answer to this question **use the same method as for question 2.**
    The ratio is 180,000:120,000:300,000. Simplify this ratio by dividing all parts by 60,000 to give a ratio of 3:2:5 and a ratio of 10 parts. To work out how profit and loss are shared, divide the total by 10 and then multiply by 3 for Dealer A's share, by 2 for Dealer B's share and by 5 for Dealer C's share.

	Dealer A (× 3)	Dealer B (× 2)	Dealer C (× 5)
a. £70,000 ÷ 10 = £7,000	**£21,000**	**£14,000**	**£35,000**
b. £8,000 ÷ 10 = £800	**£2,400**	**£1,600**	**£4,000**
c. £306,000 ÷ 10 = £30,600	**£91,800**	**£61,200**	**£153,000**
d. £144,620 ÷ 10 = £14,462	**£43,386**	**£28,924**	**£72,310**
e. £18,080 ÷ 10 = £1,808	**£5,424**	**£3,616**	**£9,040**