

Question	Answer	Mark	Mark scheme	Additional guidance
21	45.6	P1	for a process to start to work with the ratio, eg $240 \div (3 + 5) (= 30)$ or pens = $3n$ and pencils = $5n$ where n is a positive integer	Can work in £ or pence but must be consistent, 90 or 150 imply P1 This mark can be awarded at any stage
		P1	for a complete process to find the number of pens and pencils, eg " $30" \times 3 (= 90)$ and " $30" \times 5 (= 150)$ OR for process to find one cost or amount to sell for one item eg [pens] $\times 9 (= 810)$ or [pens] $\times 11 (= 990)$ or [pencils] $\times 6 (= 900)$ or [pencils] $\times 10 (= 1500)$ OR for process to find the profit for one pen or one pencil eg $11 - 9 (= 2)$ or $10 - 6 (= 4)$	[pens] could be " $30" \times 3$ or their number of pens [pencils] could be " $30" \times 5$ or their number of pencils [pens] , [pencils] $\neq 1$
		P1	for a process to find the total cost to buy or the total amount to sell for both, eg [pens] $\times 9 +$ [pencils] $\times 6 (= 1710)$ or [pens] $\times 11 +$ [pencils] $\times 10 (= 2490)$ OR process to find the profit for one item eg [pens] $\times 11 -$ [pens] $\times 9 (= 180)$ or [pens] $\times (11 - 9) (= 180)$ or [pencils] $\times 10 -$ [pencils] $\times 6 (= 600)$ or [pencils] $\times (10 - 6) (= 600)$	180 or 600 or 780 implies P3 [pens] could be " $30" \times 3$ or their number of pens [pencils] could be " $30" \times 5$ or their number of pencils [pens] , [pencils] $\neq 1$
		P1	for a complete process to find the profit as a percentage or a decimal, eg $\frac{[2490] - [1710]}{[1710]} \times 100$ or $\frac{[2490] - [1710]}{[1710]} (= 0.456...)$ or for a process to find the amount to sell as a percentage of the cost eg $\frac{[2490]}{[1710]} \times 100 (= 145.6...)$	[2490] is their amount to sell for both pens and pencils [1710] is their cost of pens and pencils [2490] – [1710] may be [180] + [600]
		A1	answer in the range 45.6 to 45.62	If an answer is given in the range in working and then rounded incorrectly award full marks. A correct answer with no supportive working gets 0 marks