

	Give 1 mark for each •	Illustration(s) for awarding each mark
1.	ans: 38.5 2 KU • ¹ know order of calculations • ² calculations correct	• ¹ $0.54 \times 40 = 21.6$ • ² answer
2.	ans: $r = \sqrt{\frac{kQ}{P}}$ 3KU • ¹ remove fraction • ² manipulate formula • ³ solve for r	• ¹ $Pr^2 = kQ$ • ² $r^2 = \frac{kQ}{P}$ • ³ answer
3.	ans: $2(2x+1)(x-3)$ 3 KU • ¹ extract common factor • ² attempt to factorise trinomial • ³ complete factorisation	• ¹ $2(2x^2 - 5x - 3)$ • ² $(2x+1)$ • ³ $(x-3)$
4.	ans: £800 3KU • ¹ correct strategy • ² uses correct ratio • ³ calculations correct	• ¹ $60\% = £480$ • ² $\frac{100}{60} \times £480$ • ³ answer
5.	ans: $\frac{x-15}{x(x-5)}$ 3KU • ¹ common denominator • ² correct numerator • ³ simplify fraction	• ¹ $x(x-5)$ • ² $\frac{3(x-5)-2x}{x(x-5)}$ • ³ answer

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6.	<p>ans: Yes 4RE</p> <ul style="list-style-type: none"> •¹ correct strategy •² find equation of line •³ sub point into line •⁴ conclusion 	<ul style="list-style-type: none"> •¹ $m = -\frac{12}{15} = -\frac{4}{5}$ •² $y = -\frac{4}{5}x + 18$ •³ $y = -\frac{4}{5}(10) + 18 = 10$ •⁴ (10, 10) lies on the line
7.(a)	<p>ans: $(2k - 5)(2k + 5)$ 1 KU</p> <ul style="list-style-type: none"> •¹ recognising difference of 2 squares 	<ul style="list-style-type: none"> •¹ $(2k - 5)(2k + 5)$
7.(b)	<p>ans: $\frac{3k}{(2k+5)}$ 2 KU</p> <ul style="list-style-type: none"> •¹ factorises numerator •² simplifies 	<ul style="list-style-type: none"> •¹ $\frac{3k(2k-5)}{(2k-5)(2k+5)}$ •² $\frac{3k}{(2k+5)}$
8.(a).	<p>ans: $m = 2h + 3$ 4 RE</p> <ul style="list-style-type: none"> • 1 interpreting information • 2 calculating gradient • 3 identifying y – intercept • 4 correctly stating equation <p>(b) ans: 23 medals 1 KU</p> <ul style="list-style-type: none"> • 1 substituting into equation of line 	<ul style="list-style-type: none"> • 1 Points (0, 3) and (14, 31) • 2 $\text{grad} = \frac{31-3}{14-0} = 2$ • 3 $c = 3$ • 4 answer <ul style="list-style-type: none"> • 1 $m = 2(10) + 3 = 23$

