

Changing Subject of Formula (Rearranging)

November 2022 Paper 3

Question	Answer	Mark	Mark scheme	Additional guidance
21	$a = \frac{p+9}{3}$	M1 A1	for correct first step to rearrange eg $p + 9 = 3a - 9 + 9$ or $\frac{p}{3} = \frac{3a-9}{3}$ oe or answer ambiguously shown eg $a = p + 9 \div 3$ or given as $\frac{p+9}{3}$ oe oe	May be seen in different equivalent forms but must be carried out, not just intention seen.

November 2023 Paper 2

Question	Answer	Mark	Mark scheme	Additional guidance
22 (a)	$13y - 1$	M1	for method to expand one bracket or collect like terms eg $3 \times 2y - 3 \times 5 (= 6y - 15)$ or $7 \times y + 7 \times 2 (= 7y + 14)$ or $3 \times 2y + 7 \times y (= 6y + 7y)$ or $3 \times -5 + 7 \times 2 (= -15 + 14)$	May be implied by $13y$ or -1
		A1	oe	
		(b)	$3x(2x + 5)$	
		(B1	for $3(2x^2 + 5x)$ or $x(6x + 15)$ or $3x(ax + b)$)	
(c)	$g = \frac{f-11}{3}$	M1	for correct first step to rearrange eg $f - 11 = 3g + 11 - 11$ or $f - 11 = 3g$ or eg $\frac{f}{3} = \frac{3g}{3} + \frac{11}{3}$ or $-3g = 11 - f$ or answer ambiguously shown, eg $g = f - 11 \div 3$ or given as $\frac{f-11}{3}$	May be seen in different equivalent form
		A1	oe	

June 2022 Paper 3

Question	Answer	Mark	Mark scheme	Additional guidance
23 (a)	25	M1	for $(T=) 4 \times (-3)^2 - 11$ or $4 \times (-3)^2 = 36$	Can accept missing brackets May be in unsimplified form, eg $d - 4 = 3p + 4 - 4$
		A1	cao	
(b)	$p = \frac{d-4}{3}$ oe	M1	for a correct first step, eg. $d - 4 = 3p$ or $\frac{d}{3} = p + \frac{4}{3}$ or for $\frac{d-4}{3}$ as answer	
		A1	for $p = \frac{d-4}{3}$ oe	

November 2024 Paper 1

Question	Answer	Mark	Mark scheme	Additional guidance
25	$w = \frac{y + 10}{3}$	M1 A1	for $y + 10 = 3w$ or $\frac{y}{3} = w - \frac{10}{3}$ for $w = \frac{y+10}{3}$ oe	Accept $w = \frac{-y-10}{-3}$ for M1A1

June 2024 Paper 3

Question	Answer	Mark	Mark scheme	Additional guidance
29 (a)	15	M1	for correct substitution, eg $40 - (-5)^2$	Condone missing brackets
(b)	$h = 3p + 5$	M1	for a correct first step, eg $3p = h - 5$ or for isolating the $\frac{h}{3}$ term, eg $p + \frac{5}{3} = \frac{h}{3}$	Award M1 for $3p + 5$ without seeing $h = 3p + 5$
		A1	for $h = 3p + 5$ oe eg $h = 3\left(p + \frac{5}{3}\right)$	

June 2020 Paper 1

Question	Answer	Mark	Mark scheme	Additional guidance
30 (a)	$q = \frac{p-7}{6}$	M1	for a correct first step, showing a method of subtraction of 7 from both sides or division of all terms by 6 eg $p - 7 = 6q + 7 - 7$ or $\frac{p}{6} = \frac{6q}{6} + \frac{7}{6}$ oe	Allow $1\frac{1}{6}$ for $\frac{7}{6}$ Award for answer without “q =”
(b)	m^6	A1	for $q = \frac{p-7}{6}$ or $q = \frac{p}{6} - \frac{7}{6}$	
		B1	cao	