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| **6** (a) | eg $10p = 3p - 5$ **or** $p = \frac{3p}{10} - \frac{5}{10}$ oe<br>eg $p = 0.3p - 0.5$ | | 3 | M1 | for a correct first step – multiplying both sides by 10 correctly or writing the RHS as 2 terms each over 10 or each term as a decimal [must be in a correct equation] |
| | eg $10p - 3p = -5$ **or** $7p = -5$<br>**or** $p - \frac{3p}{10} = -\frac{5}{10}$ **or** $0.7p = -0.5$ | | | M1ft | (ft a 3 term equation)<br>for collecting terms in $p$ on one side and number the other |
| | | $-\frac{5}{7}$ | | A1 | (dep on at least M1)<br>for $-\frac{5}{7}$ oe, accept −0.71(4...)<br>allow –0.7 if you have seen $-\frac{5}{7}$ or $-5 \div 7$ |
| (b) | | 1 | 1 | B1 | |
| (c) | | $\frac{y^2}{2x}$ | 2 | B2 | for $\frac{y^2}{2x}$ oe eg $\frac{0.5y^2}{x}$, $0.5y^2x^{-1}$, $\frac{y^2x^{-1}}{2}$, $\frac{1}{2xy^{-2}}$ oe<br><br>If not B2, award B1 for 2 of number, $x$, $y$ correct eg<br>$\frac{ky^2}{x}$ where $k \neq \frac{1}{2}$ **or**<br>$\frac{y^2}{2x^m}$ where $m \neq 1$ **or**<br>$0.5y^2$ **or**<br>$\frac{y^p}{2x}$ where $p \neq 2$ ) **oe**<br>[one term can be missing with 2 correct for B1] |

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| (d) | | $5cd^2(2c^2+3d^2)$ | 2 | B2 | for $5cd^2(2c^2+3d^2)$<br><br>B1 for a correct partial factorisation eg $5(2c^3d^2+3cd^4)$ or $cd^2(10c^2+15d^2)$ **or** $5d^2(2c^3+3cd^2)$ **or** $5c(2c^2d^2+3d^4)$ $5cd(2c^2d+3d^3)$ etc<br>**or** $5cd^2$(a 2 term expression with just one error) |
| | | | | | **Total 8 marks** |

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| **7** | $(4^n=)(2^2)^n$ **or**<br>$(4^n=)2^{2n}$ oe eg $2^k\div 2^{2n}=2^x$<br>**or**<br><br>$2^k=4^{\frac{1}{2}k}$ **and** $2^x=4^{\frac{1}{2}x}$ oe eg $\frac{4^{\frac{1}{2}k}}{4^n}=4^{\frac{1}{2}x}$ | | 2 | M1 | for writing $4^n$ as $\left(2^2\right)^n$ or $2^{2n}$ or<br>for writing each term in terms of 4 ie<br>$2^k=4^{\frac{1}{2}k}$ **and** $2^x=4^{\frac{1}{2}x}$<br><br>If these things are seen in working, award this mark even if followed by incorrect working – if not a choice of methods |
| | | $k-2n$ | | A1 | allow $2^{k-2n}$ |
| | | | | | **Total 2 marks** |