| | | | | | | |
|---|---|---|---|---|---|---|
| **17** | | $7p - 3k^2p = 8k^2 + 5$ | | 4 | M1 | for correctly multiplying both sides by the denominator **and** expanding the brackets |
| | | $7p - 5 = 8k^2 + 3k^2p$ **or** $-3k^2p - 8k^2 = 5 - 7p$ | | | M1ft | dep on 2 terms in $k^2$ and 2 other terms<br>for correctly collecting their $k^2$ terms on one side and their other terms on the other side<br><br>Note: eg $8k^2 + 3k^2$ does **not** count as 2 terms in $k^2$ |
| | | eg<br>$7p - 5 = k^2(8 + 3p)$ **or** $k^2(-3p - 8) = 5 - 7p$ | | | M1ft | dep on previous M1<br>for correctly factorising for $k^2$ or $-k^2$ in their equation |
| | | *Working not required, so correct answer scores full marks (unless from obvious incorrect working)* | $k = (\pm)\sqrt{\frac{7p - 5}{8 + 3p}}$ | | A1 | oe eg $k = (\pm)\sqrt{\frac{5 - 7p}{-3p - 8}}$ **or** $k = (\pm)\left(\frac{7p - 5}{8 + 3p}\right)^{\frac{1}{2}}$<br>**or** $k = (\pm)\left(\frac{7p - 5}{8 + 3p}\right)^{0.5}$ (condone omission of ±)<br><br>NB: to award A1 we must see $k = (\pm)\sqrt{\frac{7p - 5}{8 + 3p}}$ in working if $(\pm)\sqrt{\frac{7p - 5}{8 + 3p}}$ alone is given as an answer |
| | | | | | | **Total 4 marks** |