| Q | Answer | Mark | Comment | |
|---|---|--------|---|---------------|
| | $\frac{-1 \pm \sqrt{1^2 - 4 \times 3 \times -5}}{2 \times 3}$ or $-\frac{1}{6} \pm \sqrt{\frac{5}{3} + \frac{1}{36}}$ | M1 | oe eg $\frac{-1 \pm \sqrt{1+60}}{6}$ or $-\frac{1}{6} \pm \sqrt{\frac{60}{36} + \frac{1}{36}}$ | |
| | $\frac{-1 \pm \sqrt{61}}{6}$ or $-\frac{1}{6} \pm \sqrt{\frac{61}{36}}$ or 1.135 and -1.468 | A1 | oe two solutions eg $-\frac{1}{6} + \frac{1}{6}\sqrt{61}$ and $-$ allow decimal solutions releast 1 dp eg allow 1.14 and -1.5 | rounded to at |
| | Additional Guidance | | | |
| | Both solutions correct | | | M1A1 |
| | Both solutions seen in working but only one on answer line | | | M1A0 |
| 1 | Ignore conversion attempt after correct surd form solutions seen unless only one solution is subsequently selected | | | |
| | Working must be for two solutions to score $eg \; \frac{-1 + \sqrt{1^2 - 4 \times 3 \times -5}}{2 \times 3} \; \text{not recovered}$ | | | МО |
| | Square root sign should cover all appropriate work unless recovered $eg -\frac{1}{6} \pm \sqrt{\frac{5}{3}} + \frac{1}{36} \text{ not recovered}$ | | | МО |
| | Fraction line should be under all appropriate work unless recovered eg $-1 \pm \frac{\sqrt{61}}{6}$ not recovered | | | МО |
| | One solution correct does not imply M1 | | | |
| | Both solutions seen in working but signs transposed on answer line | | | M1A0 |
| | $\sqrt{(1^2 - 4 \times 3 \times -5)}$ is correct for $\sqrt{1^2 - 4}$ | 4×3×-5 | - | |