

Question 3 – 3:

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|------|-------------------------|---|--|
| 3(a) | 8.25 or 8.246... | 3 | M2 for $(3 - -5)^2 + (2 - 4)^2$ oe or better or M1 for $(3 - -5)$ and $(2 - 4)$ oe seen |
| 3(b) | $[y =] 4x + 7$ | 5 | B1 for [midpoint] $(-1, 3)$ soi M1 for [gradient of $l =$] $\frac{4-2}{-5-3}$ oe M1 for gradient -1 / <i>their</i> $\left(-\frac{1}{4}\right)$ M1dep on at least M1 for <i>their</i> $(-1, 3)$ substituted into $y = \text{their } m \times x + c$ oe |
| 3(c) | $(0, -8)$ and $(0, 16)$ | 4 | B3 for $(0, -8)$ or $(0, 16)$ or for -8 and 16 OR B2 for distance $= [\pm]12$ soi or M1 for $13^2 - (5[-0])^2$ oe B1 for both answers $(0, k)$, $k \neq 0$ or 4 ALT METHOD B3 for $(0, -8)$ or $(0, 16)$ or for -8 and 16 OR M2 for $y^2 - 8y - 128 [= 0]$ or for $(y - 4)^2 = 144$ or better or M1 for $13^2 = (-5 - 0)^2 + (4 - y)^2$ oe B1 for both answers $(0, k)$, $k \neq 0$ or 4 |