1. $h^2 + \left(\frac{b}{2}\right)^2 = s^2$

$h^2 + 4^2 = 12^2$ ½ $| -4^2$

$h^2 = 12^2 - 4^2 \quad | \sqrt{}$

$h = \sqrt{12^2 - 4^2}$

$= \sqrt{144 - 16} = \underline{\sqrt{128}\text{ cm}}$ 1

(1½)

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2. $h^2 + \left(\frac{s}{2}\right)^2 = s^2$

$6^2 + \frac{s^2}{4} = s^2$ ½ $| \cdot 4$

$144 + s^2 = 4s^2 \quad | -s^2$

$144 = 3s^2 \quad | :3$

$48 = s^2 \quad | \sqrt{}$

$\underline{\sqrt{48}\text{ cm} = s}$ 1

(1½)

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3. $A = \frac{8\text{cm} \cdot 6\text{cm}}{2} = \underline{24\text{ cm}^2}$

$d = \sqrt{8^2 + 6^2} = \sqrt{64 + 36} = \sqrt{100} = \underline{10\text{ cm}}$ ½

$\frac{10 \cdot x}{2} = 24 \quad | \cdot 2$

$10 \cdot x = 48 \quad | :10$

$\underline{x = 4{,}8\text{ cm}}$ 1

(1½)

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4. a.) $x^2 + x^2 = 4^2$

$2x^2 = 16 \quad | :2$

$x^2 = 8 \quad | \sqrt{}$

$\underline{x = \sqrt{8}}$

$\overline{AM} = \sqrt{4^2 + \sqrt{8}^2}$

$= \sqrt{16 + 8} = \underline{\sqrt{24}}$ 1

b.) $2^2 + 3^2 = x^2 \quad | \sqrt{}$

$x = \sqrt{2^2 + 3^2}$

$= \sqrt{4 + 9} = \underline{\sqrt{13}}$

$\overline{AM} = \sqrt{6^2 + \sqrt{13}^2}$

$= \sqrt{36 + 13}$

$= \sqrt{49} = \underline{7}$ 1

(2)

5. $3^2+3^2 = x^2 \quad | \sqrt{}$

$x = \sqrt{3^2+3^2}$

$= \sqrt{9+9} = \underline{\sqrt{18}\ m}$ ½

(1½)

$\sqrt{18}^2 + 3^2 = \overline{AB}^2 \quad | \sqrt{}$

$\overline{AB} = \sqrt{\sqrt{18}^2+3^2}$

$= \sqrt{18+9} = \underline{\underline{\sqrt{27}\ m}}$ 1

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6. a) $\overline{AB} = \sqrt{5^2+3^2} = \sqrt{25+9} = \underline{\sqrt{34}\ m}$

$\overline{AC} = \sqrt{\sqrt{34}^2+4^2} = \sqrt{34+16} = \underline{\sqrt{50}\ m}$

(2½)

$\Rightarrow u = \underline{\underline{(\sqrt{50}+\sqrt{34}+4)\ m}}$ 1½

b) $A = \frac{\sqrt{34}m \cdot 4m}{2} = \underline{\underline{\sqrt{34}\cdot 2\ m^2}}$ 1

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7. $d = \sqrt{4^2+3^2} = \sqrt{16+9} = \sqrt{25} = \underline{5m}$ ½

(1½)

$A = \frac{5m \cdot 1m}{2} = \underline{\underline{2{,}5\ m^2}}$ 1

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12 Pkt