

(ii) Given that the area of triangle PQR , as shown in the diagram, is $\left(3\sqrt{48} + 2\sqrt{75} - \frac{48}{\sqrt{24}}\right)\text{cm}^2$ and the length of QR is $(11 - 2\sqrt{2})\text{cm}$, calculate the exact shortest distance from P to QR . [3]

Solve the equation $\sqrt{3x+2} + \sqrt{x+3} = \sqrt{1-2x}$. [Ans: $-\frac{2}{3}$]

(i) Simplify $3\sqrt{48} + 2\sqrt{75} - \frac{48}{\sqrt{24}}$. [Ans: (i) $22\sqrt{3} - 4\sqrt{6}$]

Simplify $(3-\sqrt{7})^2 - \frac{3}{2+\sqrt{7}} + \frac{112}{\sqrt{28}}$, leaving your answer in the form $a+b\sqrt{c}$. [Ans: $18+\sqrt{7}$]

爱屋及乌 (ài wū jí wū)	比喻爱一个人而兼爱与他有关的人或事物。
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