

1.76  
4

$$\textcircled{1} \quad AC^2 = AB^2 + BC^2 = 2AB^2$$
$$60^2 = 2AB^2 \rightarrow AB = \sqrt{1800}$$

4 - 2 2 10 83 N/C 100

(npl & p p kh) 11/15 2018 BAHAR 2ND YR B.A

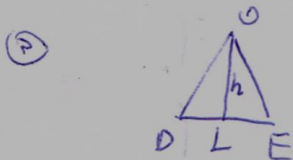
$$BM = \frac{1}{2} AC = 30$$

$$S_{ABC} = S_{AOC} + S_{BOC} + S_{AOB} \quad \triangle BOA \cong \triangle COB \text{ (S.S.S)}$$

$$\frac{30 \cdot 60}{2} = 2 \cdot S_{COB} + S_{AOC} = 2 \cdot \frac{h \cdot \sqrt{1800}}{2} + \frac{14 \cdot 60}{2}$$

$$1800 = 2\sqrt{1800} h + 840$$

$$h = \frac{960}{2\sqrt{1800}} = \frac{480}{30\sqrt{2}} = \frac{16}{\sqrt{2}} = 8\sqrt{2}$$



$$LE = \sqrt{OE^2 - h^2} = \sqrt{14^2 - 64 \cdot 2}$$
$$= \sqrt{196 - 128} = \sqrt{68} = 2\sqrt{17}$$

$$DE = 2LE = 4\sqrt{17}$$