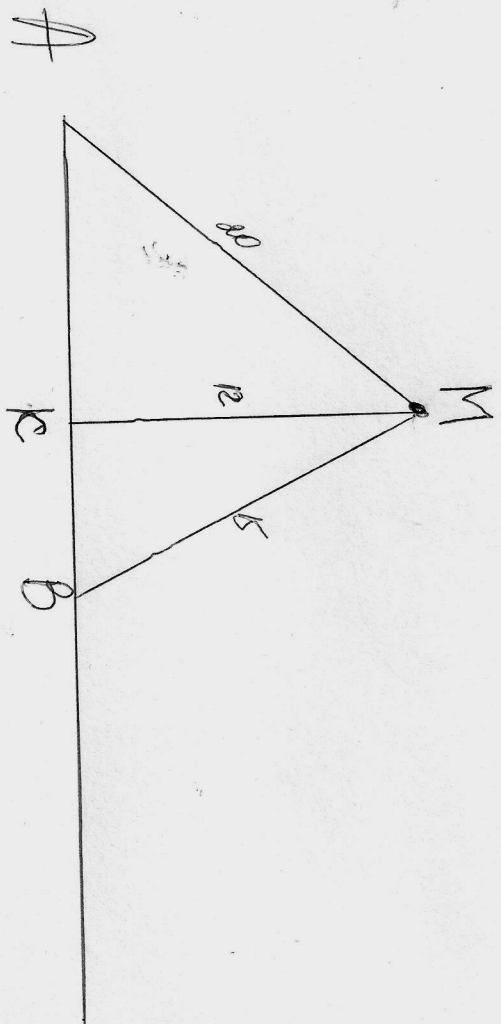




Given: $MA \perp MB$

$MA = 15$

$MB = 20$

Find: AB

Proof: $\triangle MAK$

$$MK^2 = MA^2 - AK^2 = 400 - 144 = 256, \text{ so } MK = 16$$

$$AK = \sqrt{256} = 16$$

$$KB^2 = MB^2 - MK^2 = 225 - 144 = 81, \text{ so } KB = 9$$

$\triangle MBK$

$$KB = \sqrt{81} = 9$$

$$AB = AK + KB = 16 + 9 = 25$$

$$AB = 25$$