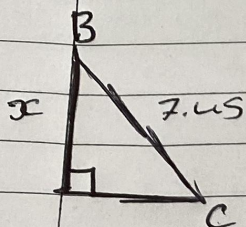


$$\frac{BC}{\sin 18} = \frac{20}{\sin 124}$$

$$BC = \frac{20(\sin 18)}{\sin 124} = \underline{7.45 \text{ miles}}$$



$$a = 38$$

$$a_2 = 180 - (38 + 90)$$

$$a_2 = 52$$

$$\frac{7.45}{\sin 90} = \frac{BD}{\sin 38}$$

$$BD = \frac{(\sin 38) 7.45}{\sin 90} = 4.58 \text{ miles}$$