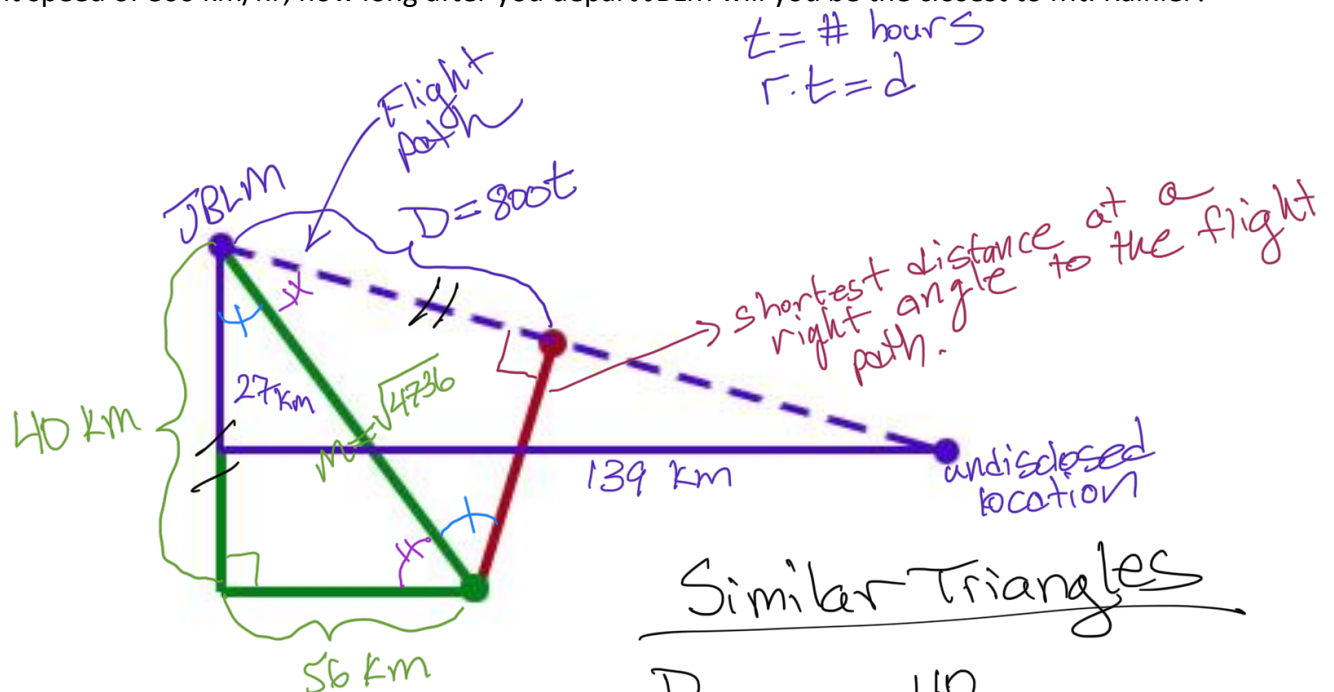


Module 9: Checkpoint 1 – Question 9

You're flying from Joint Base Lewis-McChord (JBLM) to an undisclosed location 27 km south and 139 km east. Mt. Rainier is located approximately 56 km east and 40 km south of JBLM. If you are flying at a constant speed of 800 km/hr, how long after you depart JBLM will you be the closest to Mt. Rainier?



$$m^2 = 210^2 + 56^2$$

$$m^2 = 4736$$

$$m = \sqrt{4736}$$

Similar Triangles

$$\frac{D}{\sqrt{4736}} = \frac{40}{\sqrt{4736}}$$

$D = 40$ but $D = 800t$

$$\text{zoot} = 40$$

$$t = \frac{40}{800}$$

$$t = 0.05 \text{ hours}$$

But we need to give the answer in minutes.

$$1 \text{ hr} = 60 \text{ min}$$

$$0.05 * 1 \text{ hr} = 0.05 * 60 \text{ min}$$

$$0.05 \text{ hr} = \underline{3 \text{ minutes.}}$$

At 3 minutes the plane will be closest to Mt Rainier.