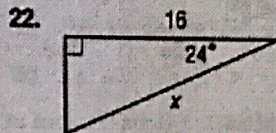
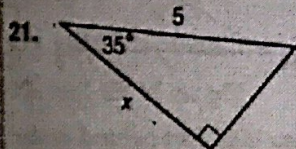
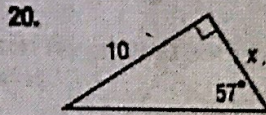
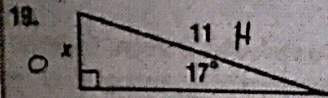


DMS & Finding Exact Trig Values

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Find the value of x . Round to the nearest tenth, if necessary.

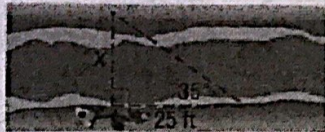
(Example 3)



$$\textcircled{19} \sin 17^\circ = \frac{x}{11} \quad x \approx 3.2$$

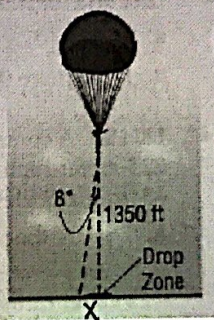
$$\textcircled{21} \cos 35^\circ = \frac{x}{5} \quad x \approx 4.1$$

27. MOUNTAIN CLIMBING A team of climbers must determine the width of a ravine in order to set up equipment to cross it. If the climbers walk 25 feet along the ravine from their crossing point, and sight the crossing point on the far side of the ravine to be at a 35° angle, how wide is the ravine? (Example 4)



$$\textcircled{27} \tan 35^\circ = \frac{x}{25} \quad x \approx 17.5 \text{ ft.}$$

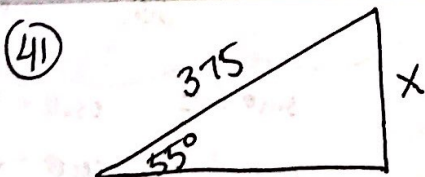
30. PARACHUTING A paratrooper encounters stronger winds than anticipated while parachuting from 1350 feet, causing him to drift at an 8° angle. How far from the drop zone will the paratrooper land? (Example 4)



$$\textcircled{30} \tan 8^\circ = \frac{x}{1350} \quad x \approx 189.7 \text{ ft.}$$

41. ROLLER COASTER On a roller coaster, 375 feet of track ascend at a 55° angle of elevation to the top before the first and highest drop. (Example 6)

- Draw a diagram to represent the situation.
- Determine the height of the roller coaster.



$$\sin 55^\circ = \frac{x}{375}$$

$$x \approx 307.2 \text{ ft}$$

