

CHECK ANSWERS: ch.4 #78-81,84,86,90,94-96

#86d → draw as two separate triangles

#90 → sketch diagram, then solve

#94 → sketch diagram, then solve

$$-2 \quad \frac{13}{4} \quad 4 \quad 4.67 \quad 6.84 \quad 8.35$$

$$21.04 \quad 36.03 \quad 36.15 \quad 40.42 \quad 45$$

$$60 \quad 67.4 \quad 68.96 \quad 80.83 \quad 874.57$$

$$\sin A = \frac{12}{13} \quad \text{or} \quad \cos A = \frac{5}{13} \quad \text{or} \quad \tan A = \frac{12}{5}$$

Cosine is adjacent÷hypotenuse so a smaller number divided by a larger number must be less than 1.

No, the angle is too large

$$\text{Yes, } \cos^{-1}(8/16) = 60^\circ$$

He needs to know the angle between the ramp and the ground

$\sin 67^\circ$ is the same as $\cos 23^\circ$ so both ≈ 0.921 since 67 and 23 are complementary angles that = 90°

$$\cos 23^\circ = \frac{18}{x} \quad \text{or} \quad 0.921 = \frac{18}{x}$$