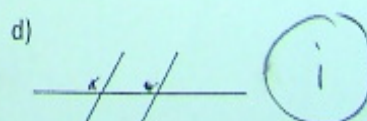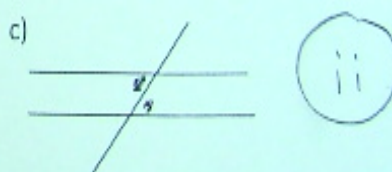Trigonometry Test Review
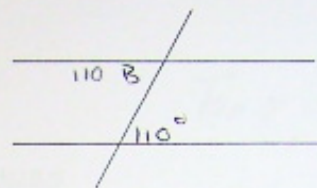
1) Match the diagram with the corresponding/correct type of angle provided.

   i)   Corresponding Angles

   ii)   Alternate Angles

   iii) Opposite Angles

   iv)   Co-Interior Angles

a)

b)

c)

d)

provided with.

2) What is the value for the angle of B?

110 B

$110°$

a) 60°   b) 70°   c) 110°   d) 35°

3) Which of the following answers do not represent a Pythagorean triple?

a) 3, 4, 5   b) 12, 35, 37   c) 16, 63, 65   d) 33, 56, 64

$16^2 + 63^2 = 65^2$

$256 + 3969 = 65$

$4225 \quad 4225$

$33^2 + 56^2 = 64^2$

$1089 + 3136 = 4096$

$4225 \neq 4096$
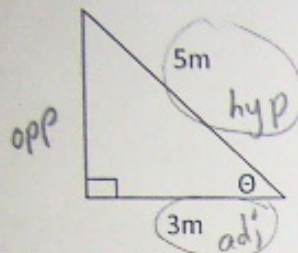
$a^2 + b^2 = c^2$

$3^2 + 4^2 = 5^2$

$9 + 16 = 25$

$12^2 + 35^2 = 37^2$

$144 + 1225 = 1369$

$1369 = 1369$

4) Find the value of Theta (θ) for the following question;

5m
hyp
opp
θ
3m adj

a) 48°   b) 62°   c)90°   d) 53°
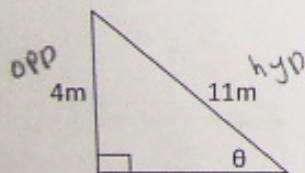
$Cos\ \theta = \dfrac{adj}{hyp}$

$Cos\theta = \dfrac{3}{5}$

$Cos\theta = 0.6$

$\theta =$

5) Find the value of Theta (θ) for the following question;

opp
4m
hyp
11m
θ

a) 15°   b) 21°   c)42°   d)34°

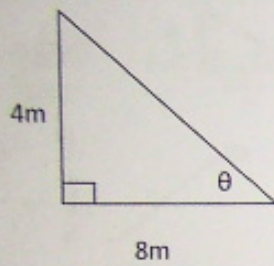$Sin\theta = \dfrac{opp}{hyp}$

$Sin\theta = \dfrac{4}{11}$

$Sin\theta = 0.3636$

$\theta = 21°$

6) Find the value for Theta (θ) for the following question;

4m

8m

θ

a) 25.5   b)26.5   c)27.5   d)28.5

$= 26$ $= 27$ $= 28$ $= 29$

$$\text{Tan } \theta = \frac{opp}{adj}$$

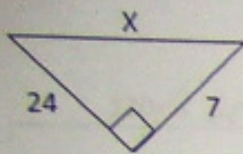$$\text{Tan } \theta = \frac{4}{8}$$

$$\text{Tan } \theta = 0.5$$

$$\theta = 26.5$$

$$27$$

7)

$$a^2 + b^2 = c^2$$
$$24^2 + 7^2 = x^2$$
$$576 + 49 = x^2$$
$$\sqrt{625} = \sqrt{x^2}$$
$$25 = x$$

a) 30   b) 27   c) 26   (d) 25

ort Answer Questions

8) The bottom of a wheelchair ramp in 15 meters long. The ramp in 9 meters high (from the bottom part of the ramp to the top part of the ramp). What is the length of the ramp that wheel chairs will roll on?
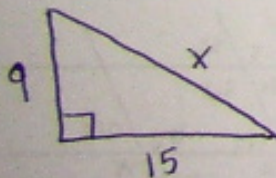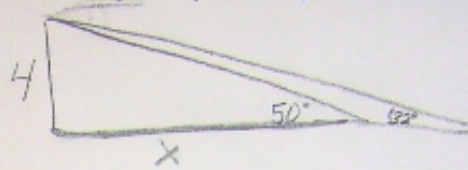

$$a^2 + b^2 = c^2$$
$$9^2 + 15^2 = x^2$$
$$81 + 225 = x^2$$
$$306 = x^2$$

$$\sqrt{306} = \sqrt{x^2}$$
$$17.5 = x$$

9) A life guard is sitting on the top of her safety chair, which is 4 meters high. The lifeguard sees a first child at an angle of depression of $50°$ and a second child at an angle of depression of $32°$.

a) How far is the first child away from the lifeguard?

$Tan θ = \dfrac{opp}{adj}$

$Tan\ 50 = \dfrac{4}{x}$

$\dfrac{1.1918}{1} = \dfrac{4}{x}$

$1.1918\ x = 4$

$\dfrac{1.1918}{1.1918} \qquad \dfrac{4}{1.1918}$

$x = 3.4$

b) How far is the second child away from the lifeguard?
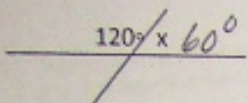
$Tan θ = \dfrac{opp}{adj}$

$Tan\ 32 = \dfrac{4}{x}$
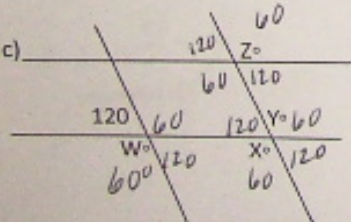
$0.6249 = \dfrac{4}{x}$

$0.6249\ x = 4$

$x = 6.4$
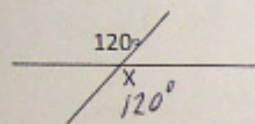
c) How far are the children away from one another?

$\begin{array}{r} 6.4 \\ -\ 3.4 \\ \hline 3\ m \end{array}$

10) Write the correct value of the angles represented by the variables (w, x, y, and z)

a) _____ 120 / x $60°$ _____   x = $60°$

b) _____ 120 /
         / x
        / $120°$ x = $120°$

c) _____   60
              120 \ z°
              60 \ 120
        120 \ 60   120 \ y° 60
         w° \ 120   x° \ 120
        60° \   60

W = $60°$
X = $60°$
Y = $60°$
Z = $60°$

:)