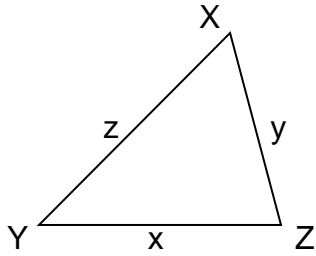


# UNIT 5 – RIGHT ANGLE TRIANGLES - ANSWERS

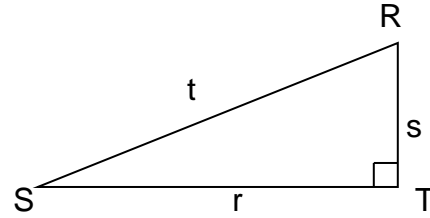
## ASSIGNMENT 1 – LABELLING TRIANGLES

1)

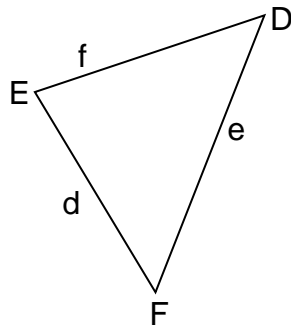
a)



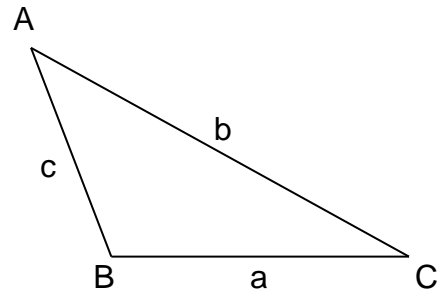
b)



c)

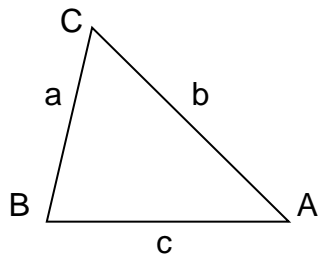


d)

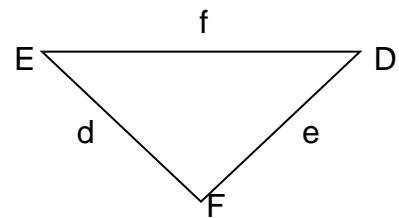


2)

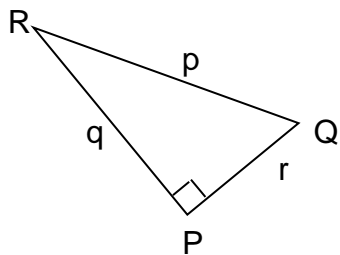
a)



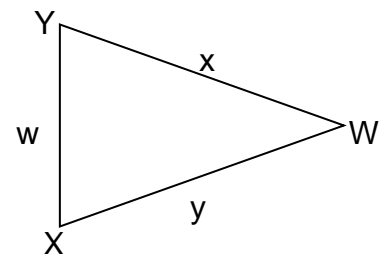
b)



c)



d)



**ASSIGNMENT 2 – PYTHAGOREAN THEOREM**

- 1) a)  $y^2 = z^2 + x^2$   
b)  $e^2 = d^2 + f^2$
- 2) a)  $p = 10.82$  b)  $m = 8.06$
- c)  $y = 6.24$  d)  $z = 8.66$
- 3) a) 10 b) 17.5
- c) 16 d) 30

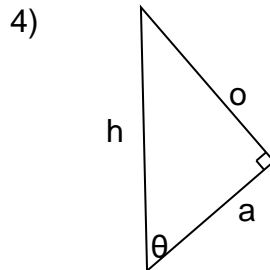
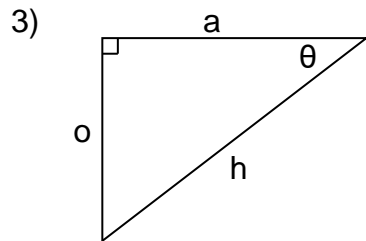
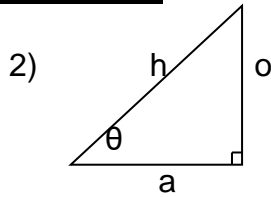
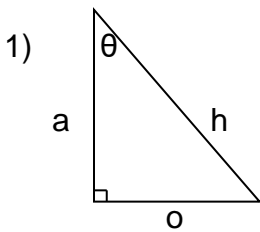
**ASSIGNMENT 3 – USING PYTHAGOREAN THEOREM IN PROBLEM SOLVING**

- 1) 21.4 cm
- 2) 5.5 m
- 3) 11.1 m
- 4) 10
- 5)  $l^2 = d^2 + h^2$
- 6) 12.5 feet
- 7) 19.2 m
- 8) 46.4 in

**ASSIGNMENT 4 – PYTHAGOREAN TRIPLES**

- 1) a) yes -  $5^2 = 4^2 + 3^2$
- b) no -  $23^2 \neq 21^2 + 9^2$
- c) yes -  $25^2 = 24^2 + 7^2$
- d) yes -  $17^2 = 15^2 + 8^2$

**ASSIGNMENT 5 – TRIGONOMETRY**



### **ASSIGNMENT 6 – THE TRIGONOMETRIC RATIOS**

- 1a)  $\sin \theta = 0.6232$     b)  $\sin \theta = 0.5417$   
2a) 0.1736    b) 0.7431    c) 0.9744    d) 0.9962  
3a)  $\cos \theta = 0.6371$     b)  $\cos \theta = 0.8438$   
4a) 0.9848    b) 0.6691    c) 0.2250    d) 0.0872  
5a)  $\tan \theta = 0.7846$     b)  $\tan \theta = 0.6420$   
6a) 0.1763    b) 1.1106    c) 4.3315    d) 11.4301  
7a) 0    b) 1  
8a) 1    b) 0  
9a) 0    b) 1    c) 57.2900    d) undefined ( "Error" is not correct)

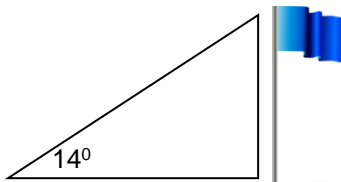
### **ASSIGNMENT 7 – FINDING SIDES IN RIGHT TRIANGLES**

- 1a) 13.3 m    b) 5.1 cm    c) 7.8 cm  
d) 12.5 m    e) 5.5 m    f) 7.2 cm

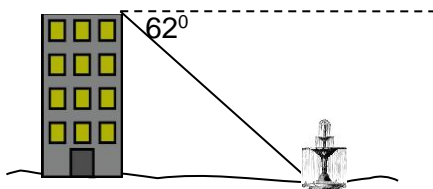
### **ASSIGNMENT 8 – USING ANGLE OF ELEVATION AND DEPRESSION**

- 1a)  $25^\circ$   
2a) 27.1ft    b) 5.2 m  
3) Name: CAD or DAC    Measure:  $27^\circ$   
4a) 5.6 cm    b) 25.2in

5)



6)



- 7) 216.4 m  
8) 4.0 m  
9) 9.2 m  
10) 26.6 m  
11) 5.4 m  
12) 24.0 m  
13) 5.5 ft

**ASSIGNMENT 9 – FINDING ANGLES**

- 1) a)  $33^\circ$       b)  $26^\circ$
- c)  $67^\circ$       d)  $89^\circ$
- e)  $72^\circ$       f)  $25^\circ$
- 2)  $9^\circ$
- 3)  $51^\circ$
- 4)  $31^\circ$
- 5)  $61^\circ$
- 6)  $54^\circ$