

Answers Sheet

Pythagoras's Theorem

1. $a^2 + b^2 = c^2$
 $6^2 + 14^2 = c^2$
 $36 + 196 = c^2$
 $232 = c^2$
 $\sqrt{232} = c$
 $c = 15.23$

2. $a^2 + b^2 = c^2$
 $4^2 + 5^2 = c^2$
 $16 + 25 = c^2$
 $41 = c^2$
 $\sqrt{41} = c$
 $c = 6.40$

3. $a^2 + b^2 = c^2$
 $8^2 + 3^2 = c^2$
 $64 + 9 = c^2$
 $73 = c^2$
 $\sqrt{73} = c$
 $c = 8.5$

4. $a^2 + b^2 = c^2$
 $4^2 + 9^2 = c^2$
 $16 + 81 = c^2$
 $97 = c^2$
 $\sqrt{97} = c$
 $c = 9.8$

5. $a^2 + b^2 = c^2$
 $7^2 + b^2 = 19^2$
 $49 + b^2 = 361$
 $b^2 = 361 - 49$
 $b^2 = 312$
 $b = \sqrt{312}$
 $b = 17.6$

6. $a^2 + b^2 = c^2$
 $a^2 + 7^2 = 11^2$
 $a^2 + 49 = 121$
 $a^2 = 121 - 49$
 $a^2 = 72$
 $a = \sqrt{72}$
 $a = 8.4$

7. $a^2 + b^2 = c^2$
 $a^2 + 5.1^2 = 3.2^2$
 $a^2 + 26.01 = 10.24$
 $a^2 = 10.24 - 26.01$
 $a^2 = -15.77$
 $a = \sqrt{-15.77}$
 $a = 3.9$

8. $a^2 + b^2 = c^2$
 $9.4^2 + b^2 = 12.8^2$
 $88.36 + b^2 = 163.84$
 $b^2 = 163.84 - 88.36$
 $b^2 = 75.84$
 $b = \sqrt{75.84}$
 $b = 8.7$

9. $a^2 + b^2 = c^2$

$$4^2 + 3^2 = y^2$$

$$16 + 9 = y^2$$

$$25 = y^2$$

$$\sqrt{25} = y$$

$$y = 5$$

$$x^2 + 5^2 = 10^2$$

$$x^2 + 25 = 100$$

$$x^2 = 100 - 25$$

$$x^2 = 75$$

$$x = \sqrt{75}$$

$$x = 8.6$$

10. $y^2 + 3^2 = 2.2^2$

$$y^2 + 9 = 4.84$$

$$y^2 = 4.84 - 9$$

$$y^2 = -4.16$$

$$y = \sqrt{-4.16}$$

$$y = 2.03$$

$$11.4^2 + 2.0^2 = x^2$$

$$129.96 + 4 = x^2$$

$$133.96 = x^2$$

$$x = \sqrt{133.96}$$

$$x = 11.57$$