**2D Pythagoras**

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| Name : | Class : | Date : |

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| **1)** Find the missing length in the triangle pictured belowhttp://www.mathster.com/course/simgs/96909359712_1.png       | [1]   |
| **2)** Find the missing length in the triangle pictured belowhttp://www.mathster.com/course/simgs/96909359712_2.png       | [1]   |
| **3)** A right-angled triangle has two shorts side of length 12 cm and 16 cm. Find the length of the hypotenuse.       | [1]   |
| **4)** A right-angled triangle has a hypotenuse of length 100 cm and one short side of length 28 cm. Find the length of the other short side.       | [1]   |
| **5)** Find the missing length in the triangle pictured below, giving your answer to 3 significant figureshttp://www.mathster.com/course/simgs/96909359712_3.png       | [1]   |
| **6)** Find the missing length in the triangle pictured below, giving your answer to 3 significant figureshttp://www.mathster.com/course/simgs/96909359712_4.png       | [1]   |
| **7)** A right-angled triangle has short sides of length 11 cm and 10 cm. Find the length of the hypotenuse, giving your answer to 3 significant figures.       | [1]   |
| **8)** A right-angled triangle has a hypotenuse of length 12 cm and a short side of length 9 cm. Find the length of the other short side, giving your answer to 3 significant figures.       | [1]   |
| **9)** The base of a ladder is 6 metres from a wall. The height of the wall is 7 metres.What is the minimum height the ladder must be to reach the top of the wall? (give your answer to 3 significant figures)       | [1]   |
| **10)** Find the distance between the coordinates  $(-2,-3)$ and  $(2,-4)$, giving your answer to 3 significant figures       | [1]   |
| **11)** Find the length of the line segment shown below, giving your answer to 3 significant figureshttp://www.mathster.com/course/simgs/96909359712_5.png       | [1]   |
| **12)** The diagram shows a field with length 280 metres and width 100 metres.http://www.mathster.com/course/simgs/96909359712_6.pngFind the diagonal distance across the field.Give your answer to the nearest metre.       | [1]   |

**Solutions for the assessment 2D Pythagoras**

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| **1)**  $x$ = 20 cm | **2)**  $x$ = 84 cm |
| **3)**  $x$ = 20 cm | **4)**  $x$ = 96 cm |
| **5)**  $x$ = 16.4 cm | **6)**  $x$ = 12.5 cm |
| **7)**  $x$ = 14.9 cm | **8)**  $x$ = 7.94 cm |
| **9)** Height = 9.22 cm | **10)** Distance =  $\sqrt{4^{2}+1^{2}}$Distance =  $\sqrt{17}$Distance = 4.12` |
| **11)** Length =  $\sqrt{6^{2}+3^{2}}$Length =  $\sqrt{45}$Length = 6.71` | **12)** Diagonal distance = 297 m |