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| Year  9 | | Pythagoras Practice Test | | Calculator |
| Short Answer Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Write all working and answers in the spaces provided on this Practice Test paper. | | | |
| 1. | Find the length of the hypotenuse *PQ* in the triangle *PQR*.  ......................................................................  ......................................................................    ...................................................................... | | | |
| 2. | Complete the statement of Pythagoras Theorem for the triangle PQR.  2 2 2  + = | | | |
| 3. | Find the value of w.  .............................................................  ...............................................................  ..............................................................  .............................................................. | | | |
| 4. | Find the distance EF to the nearest metre..  .........................................................  .........................................................  .........................................................  ......................................................... | | | |
| 5. | Find the length of the side *PQ* in the triangle *PQR*, correct to 2 decimal places.  ................................................................  ................................................................    ................................................................  ................................................................ | | | |
| 6. | Find the distance *d*, to the nearest centimetre.  ................................................................................  ................................................................................    ................................................................................  ................................................................................ | | | |
| 7. | Decide which triangle is right angled, giving reasons for your answer.  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 8. | The measurements shown were taken to help calculate the width *AB* of the lake. Calculate the distance *AB*, correct to the nearest 100 m.  .....................................................................  .....................................................................    .....................................................................  ..................................................................... | | | |
| 9. | Calculate the perimeter of the triangle *LMN.*  ............................................................................  ............................................................................    ............................................................................  .............................................................................. | | | |
| 10. | Find the area of the triangle *XYZ*    ..........................................................................................................................................................    .......................................................................................................................................................... | | | |

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| Year  9 | | Pythagoras Practice Test | | Calculator |
| Multiple Choice Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Mark all your answers on the accompanying multiple choice answer sheet, not on this Practice Test paper. You may do any working out on this Practice Test paper. Calculators are allowed for this section. | | | |
| 1. | Find the length of *AB* in the triangle below.  A. 46 m  B. 25 m  C. 1 156 m  D. 34 m | | | |
| 2. | The length of AB in the triangle  (to the nearest metre) is:  A.  B.  C.  D. | | | |
| 3. | Find the length of *MN*, correct to the nearest tenth of a metre.  A. 4.6 m  B. 13.8 m  C. 16.5 m  D. 21.5 m | | | |
| 4. | A piece of timber which is 2.5 metres long is attached as shown to support a vertical post.  What is the distance marked *x*?  A. 1.7 metres  B. 2.4 metres  C. 2.6 metres  D. 3.3 metres. | | | |
| 5. | Owen has 5 pieces of timber from which he wants to choose 3 pieces to construct a right angled triangle to support a billboard. Which combination would allow him to make a right angled triangle without cutting the pieces of timber?  A. 0.7 m, 1.0 m and 2.4 m B. 1.0 m, 2.4 m and 2.6 m  C. 0.7 m, 0.8 m and 1.0 m D. 0.7 m, 2.4 m and 2.6 m | | | |
| 6. | A triangular block of land has the dimensions shown. What is the perimeter of the block?  A. 170 metres  B. 230 metres  C. 320 metres  D. 400 metres. | | | |
| 7. | What is the value of *y* in the triangle shown?  A. 68 m  B. 24 m  C. 576 m  D. 6 m | | | |
| 8. | The sloping roof shown is 12 m long.  The floor length is 9 m and one wall is 3 m high.  What is the height (h) of the other wall?  A. 10.9 m  B. 6.0 m  C. 15.0 m  D. 12.4 m | | | |
| 9. | Firemen wish to rescue a person from an 8th floor window whose sill is 40 m above the base of the building. The base of the ladder must be at least 12 m from the base of the building. If the ladder is 41 m long, where will the ladder reach the building?   1. 80 cm below the windowsill. 2. 80 cm above the windowsill. 3. 176 cm above the windowsill. 4. 176 cm below the windowsill. | | | |
| 10. | Shannon draws two triangles with the measurements shown below. Which of the triangles are right angled?     1. Only triangle 1 is right angled. B. Only triangle 2 is right angled.   C. Both triangles are right angled. D. Neither triangle is right angled. | | | |

Pythagoras Practice Test

Multiple Choice Section

Answer Sheet

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Completely fill the response oval representing the most correct answer.

1. A B C D

2. A B C D

3. A B C D

4. A B C D

5. A B C D

6. A B C D

7. A B C D

8. A B C D

9. A B C D

10. A B C D