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| Year  8 | Mathematics Test –  Pythagoras Theorem | **Calculator Test** |
|  | Name |  |

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| **Answer all questions in the spaces provided on this test paper by**  **Writing the answer in the box provided.**  **or**  **Shading in the bubble for the correct answer from the four choices provided.**  **Show any working out on the test paper.** | |
| 1. | Which side forms the hypotenuse of a right triangle?  *AB*  *AC*  *BC*  *BD* |
| 2. | Which is the correct statement of Pythagoras Theorem for the triangle EFG? |
| 3. | State Pythagoras Theorem for the triangle shown below.  + = |
| 4. | Find the length of the hypotenuse in the triangle EFG.  cm |
| 5. | Calculate the value of *x*.  *x =*  cm. |
| 6. | What is the length of *AB* in the triangle?  21 m  32 m  39 m  51 m |
| 7. | Calculate the length of the side *PQ* correct to one decimal place.  *PQ* = cm |
| 8. | Find the value of *x*, correct to the nearest metre.  272  456  573  764 |
| 9. | 810  1 350  1 690  2 250 |
| 10. | What is the length of *QR*?  QR = km |
| 11. | What is the length of *VW*, correct to the one decimal place?  22.0 m  33.2 m  38.6 m  50.0 m |
| 12. | Calculate the length of the side *LN* to the nearest cm.  *LN* = cm. |
| 13. | Which of the following is not a Pythagorean triad?  (A Pythagorean Triad is a set of three numbers which obey Pythagoras Theorem.)  (12, 16, 20) (12, 35, 37) (13, 84, 85) (13, 28, 32) |
| 14. | Which triangle is right angled?  Triangle *ABC* only. Triangle *PQR* only  Both Triangles. Neither Triangle. |
| 15. | Find the length of *KL* in the triangle below, correct to one decimal place.  2.3 m  6.9 m  14.7 m  20.7 m |
| 16. | Calculate the value of *y*, correct to two decimal places.  *y =* |
| 17. | Find the perimeter of the triangle *GHI.*  Perimeter is km. |
| 18. | The measurements shown were taken to help find the length of the bridge from *A* to *B*. Calculate the length of the bridge, to the nearest 100 m.  Length is km. |
| 19. | A rectangular metal gate measures 250 cm by 300 cm has a diagonal brace through the centre. What length of metal is needed to make the gate?  391 metres.  941 metres.  1 241 metres.  1 491 metres. |
| 20. | Find the area of the triangle *PQR.*  Area is m2. |

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|  | ANSWERS |  |

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| 2. | Which is the correct statement of Pythagoras Theorem for the triangle EFG? |
| 3. | State Pythagoras Theorem for the triangle shown below.  s2 + t2 = r2 |
| 4. | Find the length of the hypotenuse in the triangle EFG.    cm |
| 5. | Calculate the value of *x*.    *x =*  cm. |
| 6. | What is the length of *AB* in the triangle?  21 m  32 m  39 m  51 m |
| 7. | Calculate the length of the side *PQ* correct to one decimal place.    *PQ* = cm |
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