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| Year  10 | | Trigonometric Applications Practice Test | | Calculator |
| Short Answer Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Write all working and answers in the spaces provided on this Practice Test paper. | | | |
| 1. | A ladder stands with its base 3.4 metres from the base of a wall and makes an angle of 67o with the ground. How far does it reach up the wall?  ....................................................................  ....................................................................  ....................................................................  ....................................................................  .................................................................... | | | |
| 2. | From a point 200 m from the base of the building, Hettie measures the angle of elevation to be 34o. What is the height of the building?  ....................................................................  ....................................................................  ....................................................................  .................................................................... | | | |
| 3. | A ship sails from *B* to *C* on a bearing of 156o for a distance of 245 km at which time it is due east of A.  How many kilometres is *A* south of *B*?  ....................................................................  ....................................................................  ....................................................................  .................................................................... | | | |

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| 4. | From the top of a 75 metre cliff, Keith measures the angle of depression of a boat out to sea to be 55o. How far is the boat from the foot of the cliff?  ....................................................................  ....................................................................  ....................................................................  ....................................................................  .................................................................... |
| 5. | An aircraft flies 2 340 km north from Perth airport and then it then turns and flies 1 400 km east.  ....................................................................  ....................................................................  ....................................................................  ....................................................................  ....................................................................  What is the bearing of the plane from Perth airport after these flights? |
| 6. | Andrew attaches a rope to the ground 6.5 metres from the base of a building and attaches the other end to the top of the building. The rope makes an angle of 76o with the ground. How long does the rope need to be if it requires 1 metre at each end to attach it?  ....................................................................  ....................................................................  ....................................................................  ....................................................................  .................................................................... |

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| Year  10 | | Trigonometric  Applications 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. | The bearing of P from Q is  A. 040o  B. 050o  C. 310o  D. 320o | | | |
| 2. | The angle of depression of *M* from *N* is:  A. 42o  B. 48o  C. 132o  D. 138o | | | |
| 3. | The angle of elevation of the top of the tower from the point P on level ground (to the nearest degree) is:  NOT TO SCALE  20 m    P  40 m  A. 30o B. 27o C. 60o D. 63o | | | |
| 4. | The cliff is 150 m high and the angle of depression of the boat is 16o. The distance of the boat from the bottom of the cliff is:  16o  NOT TO SCALE.  150 m  A. 43 m B. 144 m C. 41 m D. 523 m | | | |
| 5. | A section of a roof truss is shown. What is the slope of the roof ()?  A. 37o  B. 49o  C. 22o  D. 53o | | | |
| 6. | Q      55m    P 26°  A 55 metre long rope is connected from Q on the top of the building to P on the ground. The angle of elevation of the rope is 26°. What is the height of the building?  A. 125 m B. 49 m C. 27 m D. 24 m | | | |
| 7. | A ship *Q* leaves Hobart (*H*) and sails 360 km on a bearing 246o.  It is then due south of another ship (*P)*.  How far is *P* from Hobart (*H)*.  A. 329 km  B. 146 km  C. 394 km  D. 885 km | | | |
| 8. | A cable is attached to a mast at a height of 26 metres.  The cable makes an angle of 48o with the ground.  What is the length of the cable?  A. 17 m  B. 19 m  C. 35 m  D. 39 m | | | |

Trigonometric Applications 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