Match-Up

**Trigonometry Worded Problems**

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| **1** | A ladder is placed $1.5 m$ from the foot of a wall. The ladder reaches $3.8 m$ vertically up the wall. Find the angle between the ground and the ladder in degrees. |  | **A** | $$13.0$$ |
| **2** | A plane-spotter sees a plane in the sky at an angle of elevation of $18°$. The plane is a horizontal distance of $40 km$ from the plane-spotter. Find the vertical height of the plane in kilometres. |  | **B** | $$134.7$$ |
| **3** | A bird sits on the ground $9 m$ away from the base of a Christmas tree. The angle of elevation from the bird to the top of the tree is $52°$. How tall is the tree in metres? |  | **C** | $$57.6$$ |
| **4** | A ship sails for $150 km$ on a bearing of $068°$. How far North has the ship sailed in kilometres? |  | **D** | $$68.5$$ |
| **5** | The angle of depression from the top of a $120 m$ cliff to a boat in the sea below is $63°$. What is the distance in $km$ from the top of the cliff to the boat? |  | **E** | $$12.6$$ |
| **6** | A ladder makes an angle of $75°$ with the ground. The distance of the foot of the ladder to the wall is $1.45 m$. How long is the ladder in metres? |  | **F** | $$11.5$$ |
| **7** | Find the area of this isosceles triangle in $cm^{2}$.  |  | **G** | $$56.2$$ |
| **8** | Malia is flying a kite on a $20 m$ long string. The string is at an angle of $35°$ to the horizontal. Malia is holding the kite $1.1 m$ above the ground. Find the vertical height of the kite above the ground in metres. |  | **H** | $$5.6$$ |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
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