Practice worksheet | Practical trigonometry

Elevation/depression and bearings

Name: _____ Date: _____

6 questions | 13 marks

1. A vertical tower is 16 m horizontally from an observer at ground level. Its top has elevation 35°. Find its height to one decimal place. [2 marks]

2. Repeat the tower calculation if the observing instrument is 1.5 m above the ground. [2 marks]

3. From an 8 m high platform, a boat is seen at a depression of 25°. Find its horizontal distance from the platform base. [2 marks]

4. A point is 14 km east and 20 km north of a station. Find its bearing to the nearest degree. [2 marks]

5. Find the reverse bearing of 032°. [2 marks]

6. A boat travels 24 km on bearing 210°. Find its southward and westward distances, each to one decimal place. [3 marks]