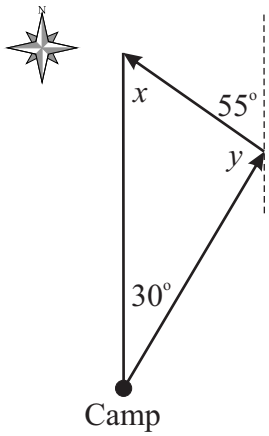
Master Maths 7 Worksheet 65
Angles in Triangles 2

65

Name: _____

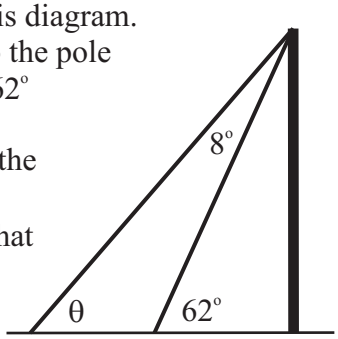
1. Two hikers walk in a direction of north 30° east from their camp and then change their direction to north 55° west until they are directly north of their camp. See the diagram below. Find angles *x* and *y* from this diagram.



x =

y =

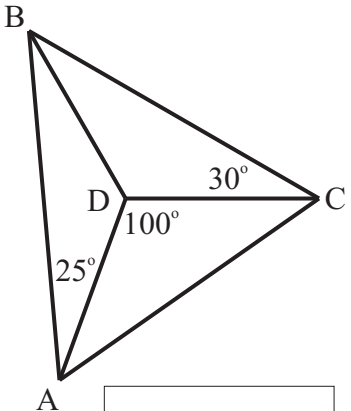
2. Two cables are used to support a vertical pole as shown in this diagram.
The cable closest to the pole makes an angle of 62° with the ground.
The angle between the cables is 8°.
Find the angle (θ) that the other cable makes with the ground.



θ =

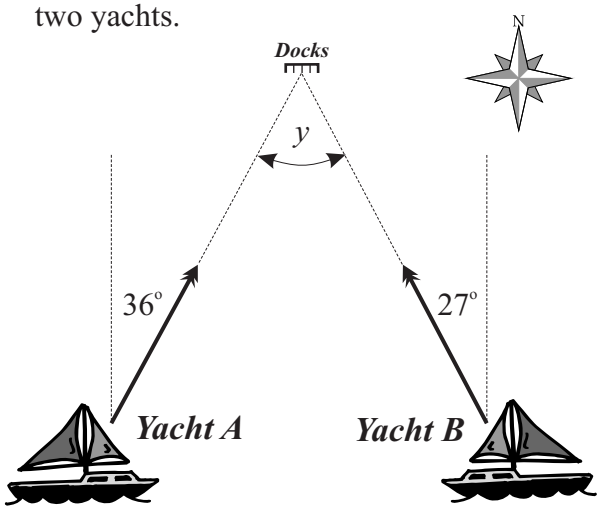
3. In this diagram the length of line BD is the same as the length of DC.

Find ∠ABD.



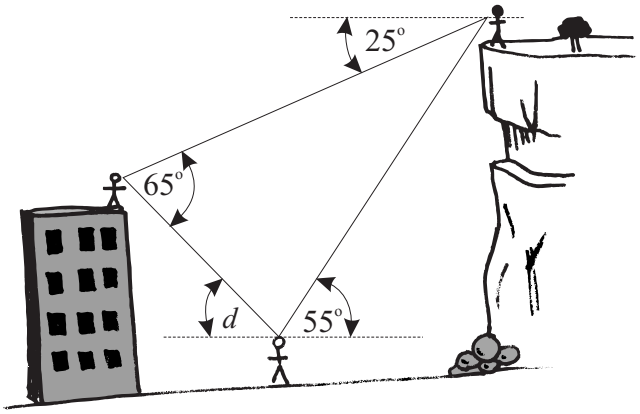
∠ABD =

4. Two yachts are returning to the docks. See the diagram below.
Yacht B is due east of yacht A.
Yacht A sails in a direction north 36° east.
Yacht B sails in a direction north 27° west.
Find the angle *y* between the paths of the two yachts.



y =

5. Natasha is standing on top of a cliff and can see her two sisters below.
Melissa is standing on top of a building and Carley is on the ground.
The angles between the girls are shown on the diagram.
Find angle *d*.



d =