

Pirate's Quest: Angles and Treasure Maps

Math

Grade 4

Pirates Theme

□ Help Captain Redbeard and his crew navigate treacherous waters by solving angle adventures on the high seas!

NAME _____

DATE _____

SCORE _____ / 8

1

Captain Redbeard is plotting a course on his treasure map. He starts sailing due north, then turns his ship 45 degrees to the east. What is the total angle he has turned from his starting direction?

2

Pirate Pete is climbing the mast of the ship. The mast makes a 90-degree angle with the deck. If Pete climbs halfway up and looks down at a 45-degree angle, what is the angle between his line of sight and the deck?

3

Three pirates are standing on the deck forming a triangle. Pirate Anne is at one corner where two ropes meet at a right angle (90 degrees). If the second angle is 60 degrees, what is the third angle of their triangle?

4

Captain Redbeard's compass rose is divided into 4 equal sections. If he sails from north to east, what angle does he turn through?

5

Two pirate ships are anchored in the harbor. Their anchor chains form an angle of 120 degrees between them. If one ship moves so the angle becomes 75 degrees, how many degrees did the angle decrease?

6

Pirate Jack is aiming his cannon at a target. The cannon is pointed at 30 degrees above the horizontal. His friend tells him to aim 25 degrees higher. At what angle will the cannon now be pointed?

7

A pirate flag is hanging from a pole. The pole makes a 90-degree angle with the ground. If the flag unfurls and creates a 60-degree angle with the pole, what is the angle between the flag and the ground?

8

Captain Redbeard draws an X on his treasure map by drawing two straight lines that cross. If one angle formed is 70 degrees, what is the angle directly opposite to it (called a vertical angle)?

Answer Key

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For Parents and Teachers

1

Captain Redbeard is plotting a course on his treasure map. He starts sailing due north, then turns his ship 45 degrees to the east. What is the total angle he has turned from his starting direction?

ANSWER

45 degrees

2

Pirate Pete is climbing the mast of the ship. The mast makes a 90-degree angle with the deck. If Pete climbs halfway up and looks down at a 45-degree angle, what is the angle between his line of sight and the deck?

ANSWER

45 degrees

3

Three pirates are standing on the deck forming a triangle. Pirate Anne is at one corner where two ropes meet at a right angle (90 degrees). If the second angle is 60 degrees, what is the third angle of their triangle?

ANSWER

30 degrees

4

Captain Redbeard's compass rose is divided into 4 equal sections. If he sails from north to east, what angle does he turn through?

ANSWER

90 degrees

5

Two pirate ships are anchored in the harbor. Their anchor chains form an angle of 120 degrees between them. If one ship moves so the angle becomes 75 degrees, how many degrees did the angle decrease?

ANSWER

45 degrees

6

Pirate Jack is aiming his cannon at a target. The cannon is pointed at 30 degrees above the horizontal. His friend tells him to aim 25 degrees higher. At what angle will the cannon now be pointed?

ANSWER

55 degrees

7

A pirate flag is hanging from a pole. The pole makes a 90-degree angle with the ground. If the flag unfurls and creates a 60-degree angle with the pole, what is the angle between the flag and the ground?

ANSWER

30 degrees

8

Captain Redbeard draws an X on his treasure map by drawing two straight lines that cross. If one angle formed is 70 degrees, what is the angle directly opposite to it (called a vertical angle)?

ANSWER

70 degrees

