

Name _____



1. Emily is playing a game of hopscotch in the park. If the squares are arranged in a line, with each square measuring 3 feet in length, and she hops diagonally from one corner of a square to the opposite corner, how far does she hop?
2. Jack is building a sandcastle on the beach. If he digs a trench that's 5 feet long and 4 feet deep, how long is the sandcastle's diagonal side, assuming it forms a right triangle with the ground?
3. Mia is flying a kite in the park. If the kite string measures 20 meters, and she lets it out at a 30-degree angle from the ground, how high above the ground is the kite flying?
4. Ethan is rearranging furniture in his room. If his room is 8 feet wide and 10 feet long, and he wants to place his bed diagonally across the room, how long should the bed be to fit perfectly from one corner to the opposite?
5. Sophia is painting a mural on a wall. If the wall measures 6 feet in height and 8 feet in width, and she wants to paint a diagonal line from one top corner to the opposite bottom corner, how long will the line be?
6. Lucas is setting up a triangular tent for a camping trip. If two sides of the tent measure 4 feet and 5 feet respectively, how long should the third side be to form a right triangle?
7. Olivia is making a triangular garden in her backyard. If two sides of the garden measure 7 feet and 9 feet respectively, how long should the third side be to ensure the garden is a right triangle?
8. Daniel is flying a kite on a windy day. If the kite string forms a 45-degree angle with the ground, and the string is 25 meters long, how high above the ground is the kite flying?
9. Sarah is building a ramp for her skateboard. If the height of the ramp is 3 feet and the length is 4 feet, what's the length of the hypotenuse, representing the slope?
10. Noah is setting up a triangular tent for a camping trip. If the height of the tent is 6 feet and the length of the base is 8 feet, how long should the diagonal side be to fit the tent poles perfectly?

