

Checkpoint 1 Ch 3

Short Answer

1. Write the prime factorization of 630.
2. Determine the greatest common factor of 280 and 360.
3. Determine the least common multiple of 78 and 102.
4. A cube has surface area 3750 square feet. What is its volume?
5. Use factoring to determine the cube root of 2744 and show all of your work.
6. Use factoring to determine the square root of 1024 and show all of your work.

7. Bill and Betty do chores at home. Bill mows the lawn every 8 days, and Betty bathes the dog every 14 days. Suppose Bill and Betty do their chores today. How many days will pass before they both do their chores on the same day again?

8. A builder wants to cover a wall measuring 9 ft. by 15 ft. with square pieces of plywood.

a) What is the side length of the largest square that could be used to cover the wall?

Assume the squares cannot be cut.

b) How many square pieces of plywood would be needed?

Problem

9. Chris completes one lap of a go-cart track every 40 s. D'Arcy completes one lap of the same track every 50 s. Suppose Chris and D'Arcy cross the starting line at the same time.

a) How many seconds will pass before they cross the starting line at the same time again?

b) How many laps will Chris have completed in that time? How many laps will D'Arcy have completed in that time?

10. A square has area 40.0 cm^2 . Determine the perimeter of the square to the nearest tenth of a centimetre.

11. Use factoring to determine whether 4913 is a perfect square, a perfect cube, or neither.