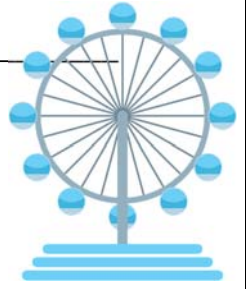


Name _____



The Amusement Park Expansion (Real-World Applications)

Adventure Springs Amusement Park is growing! New rides, snack stands, and water features are being built, and the engineers need your help with measurements and calculations. Use your math and algebra skills to help them plan and build each part of the park accurately.

- 1) A roller coaster track is x m long. After building 425 m, 175 m remain. Find x .
- 2) The Ferris wheel foundation has an area of 120 m^2 , and it is x m wider than the carousel's 90 m^2 base. Find x .
- 3) Workers pour 4 equal sections of cement that together total 36 m^3 . Find the volume of each section.
- 4) A water slide uses 2,400 L of water per ride. After four rides, x L were used in total. Write and solve an equation for x .
- 5) A snack stand weighs 8,000 kg, and a game booth weighs x kg less. If the booth weighs 6,500 kg, find x .
- 6) A new path around the park is 3 times longer than the one around the lake. If both together measure 800 m, find the length of each.
- 7) Each ride needs x m of fencing, and there are 10 rides needing a total of 1,250 m. Find x .
- 8) The cotton candy stand needs 3 shelves, each 2.5 m long. What is the total shelf length?
- 9) The roller coaster cars each weigh 650 kg. If there are 8 cars, what is their combined weight?
- 10) The park's water reservoir can hold 15,000 L of water. After filling 9,500 L, how much more can it hold?
- 11) The souvenir shop's floor is x m long and 12 m wide, with an area of 180 m^2 . Find x .
- 12) The fireworks team sets up 4 launch pads, each using x kg of fireworks, plus 200 kg for the finale. The total fireworks mass is 1,000 kg. Find x .