

Name _____



Construction Site Measurements (Real-World Applications)

At the BrightBuild Construction Site, workers are measuring beams, mixing cement, and loading trucks. Every calculation counts - one wrong measurement could cause a big delay! Use your math and algebra skills to help the builders make accurate measurements and keep the project on track.

- 1) A steel beam is x m long. After cutting off 3 m, 12 m remain. Find x .
- 2) The crew poured 3 equal concrete slabs that together cover 72 m^2 . What is the area of one slab?
- 3) A water tank holds 1,200 L. After using x L for mixing cement, 850 L remain. Find x .
- 4) The foreman ordered 6 pallets of bricks, each weighing 320 kg. What is the total weight?
- 5) A truck carries 4 loads of gravel, each x kg, for a total of 14,000 kg. Find x .
- 6) The crane lifted a beam that weighs 2,750 kg. If that is 550 kg more than another beam, find the weight of the smaller one.
- 7) The crew installed 5 pipes, each 2.4 m long. What is the total length of pipe installed?
- 8) A rectangular foundation measures $25 \text{ m} \times 18 \text{ m} \times x \text{ m}$ deep. If its total volume is $1,350 \text{ m}^3$, find x .
- 9) A batch of cement is made by mixing x L of water and 400 L of sand to make 1,000 L of cement. Find x .
- 10) A dump truck holds 9,000 kg of gravel. After unloading x kg, 3,500 kg remain. Find x .
- 11) A wall requires 3 layers of bricks, each using 450 bricks. How many bricks are needed in total?
- 12) A steel rod is x m long. After cutting it into 4 equal pieces, each piece is 6.5 m long. Find x .