

Q4HW5

Date_____ Period_____

Solve each question. Round your answer to the nearest hundredth.

- 1) Working alone, Dan can tar a roof in 8 hours. Anjali can tar the same roof in 14 hours. Find how long it would take them if they worked together.
- 2) Aliyah can dig a 10 ft by 10 ft hole in eight hours. Rob can dig the same hole in ten hours. If they worked together how long would it take them?
- 3) It takes Beth 13 hours to tar a roof. Kim can tar the same roof in 9 hours. If they worked together how long would it take them?
- 4) John can mop a warehouse in eight hours. DeShawn can mop the same warehouse in nine hours. If they worked together how long would it take them?
- 5) Working alone, Arjun can sweep a porch in 14.4 minutes. Lea can sweep the same porch in 9 minutes. If they worked together how long would it take them?
- 6) Jack can mop a warehouse in 11 hours. Stefan can mop the same warehouse in 12 hours. If they worked together how long would it take them?
- 7) 3 fl. oz. of a 50% sugar solution was mixed with 7 fl. oz. of pure water. Find the concentration of the new mixture.
- 8) 10 m^3 of soil containing 20% sand was mixed into 5 m^3 of soil containing 50% sand. What is the sand content of the mixture?
- 9) How much of Brand A fruit punch (45% fruit juice) must be mixed with 6 L of Brand B fruit punch (38% fruit juice) to create a mixture containing 42% fruit juice?
- 10) How much of Brand A fruit punch (56% fruit juice) must be mixed with 4 gal. of Brand B fruit punch (8% fruit juice) to create a mixture containing 24% fruit juice?
- 11) Amy and her brother mixed together two types of soil to make 5 yd^3 of soil with a 18% silt content. They used 1 yd^3 of a soil with 50% silt content and 4 yd^3 of another type of soil. What was the silt content of the second type of soil?
- 12) Brand X sells 20 kg bags of mixed nuts that contain 29% peanuts. To make their product they combine Brand A mixed nuts which contain 25% peanuts and Brand B mixed nuts which contain 35% peanuts. How much of each do they need to use?
- 13) Wilbur's Red Hot Peanuts which cost \$2/lb are made by combining peanuts which cost \$1/lb with spices which cost \$3/lb. Find the number of lb of peanuts and spices required to make 12 lb of Wilbur's Red Hot Peanuts.
- 14) Lisa wants to make 6 L of a 40% acid solution by mixing together a 10% acid solution and a 46% acid solution. How much of each solution must she use?