

Chemistry 11

Unit Conversion Worksheet

Directions: Read each question carefully and solve using the procedure discussed in class. Be sure to show all your work.

1. Retired quarterback, Drew Bledsoe, needs to buy some donuts for the team practice. If a dozen donuts cost \$3.25, how much will it cost for 8 dozen?
2. Mr. Simms loves to spend time playing (carefully!) with chemicals. He needs to order some chemicals for his latest and greatest experiment. The chemical he needs costs \$15.50/gram. How much will it cost to order 25 grams?
3. Mr. Eckert needs to have multiple coffees every day. If he spends a \$3.60 each day at Tim Horton's, how much will he spend after one school week (5 days)?
4. Daniel Sedin of the Vancouver Canucks is averaging 3 points per game. How many games will he have to play in order to reach 81 points?
5. Ms. Johnson has to go to the store and buy some candy. If the candy costs \$1.10 per 100 grams, how much will 650 grams cost?
6. Mr. Simms has to drive all the way to Chilliwack to pick up some chemicals for a science experiment. If his car gets 7.8 km/L of gas, how much gas will he need to travel the 55 km to Chilliwack?

13. If 1 yard = 3 feet, 1 foot = 12 inches and 1 centimeter = 0.3937 inch, how many centimeters are there in 5 yards?
14. Solve the following, using the fact that beakers cost \$8.40 per dozen.
- Harry drops 3 dozen beakers. How much will Mr. Simms charge Harry?
 - Harry drops another 5 dozen beakers (clumsy!). If Burger Bob's hamburgers cost \$1.50 each, how many hamburgers could clumsy Harry have bought for the same amount of money, as he has to pay for the second batch of beakers?
 - Harry does not learn very quickly, and breaks a third batch of beakers. If he has to pay \$13.30, what is the number of beakers he breaks the third time? (Express your answer in actual numbers of beakers, rather than in 'dozens of beakers'.)
15. *Light travels at a rate of 3.00×10^8 m/s.* It takes light 8.3 min to travel from the surface of the sun to the earth. What is the distance of the earth from the sun?
16. The moon is 3.8×10^5 km from the earth. What time will pass between the instant an astronaut on the moon speaks and the instant the voice is heard on earth? (His voice travels by modulated laser beam at the speed of light).

Name: _____

Block: _____

17. A robot vehicle is traveling on the surface of Mars while Mars and Earth are at their closest approach (7.83×10^7 km). Suddenly, a video camera on the robot shows a yawning crevasse dead ahead! How many minutes will it take for an electronic signal traveling at the speed of light to go from Earth to Mars in order to tell the robot to stop immediately?

18. Convert 267,000 mm to km

19. Convert 1,200,900 μm to m

20. Jacob Simms is a 2nd degree black belt in Taekwondo and can perform amazingly fast back round kicks. If he can do 5 kicks in 3 seconds, how many kicks can he do in 2 hours?

21. Mrs. Simms loves chai tea lattes from Starbucks. If she drinks one latte a day, at a cost of \$4.85, how much will she spend per month? (Assume 30 days in a month). How much in a year?

22. What number comes after 7?