

- A conversion factor is a ratio of two equivalent amounts, so it always equals 1.
A) True B) False
- Which of the following statements are true about the conversion factor below?
A) It could be used to convert 120 cm to inches.
B) It could be used to convert 12 inches to cm.
C) Since 1 inch = 2.54 cm, the conversion factor is equal to 1.
D) All of the above are true statements.
- Which of the following setups, when solved, would give you the number of seconds in one week?
A) A B) B C) C D) D
- What is wrong with this setup to determine the number of inches in one kilometer:
A) The ratio of feet to inches is not correct.
B) The conversion factors don't all have 1 on the same side of the division bar.
C) You can't divide small numbers like 1.0 by large numbers like 5280.
D) The miles don't get canceled by the second conversion factor.
- Given that there are 2 shaftments in a foot, 1.5 feet in a cubit, 2 cubits in a yard, and 2 yards in a fathom, how many shaftments are there in 2.0 fathoms?
A) There is not enough information given.
B) 0.17 shaftments
C) 12 shaftments
D) 24 shaftments
- Given that there are 3 hands in one foot, and 12 inches in one foot, how many hands are there in 1.0 inch?
A) 0.33 hands B) 0.25 hands
C) 4.0 hands D) 36 hands
- You want to know the number of seconds in a week. Which of the following shows the conversion factors you'll need to perform this calculation?
A) (1 week / 7 days)(1 day / 24 hours)(1 hour / 60 min)(1 min / 60 sec)
B) (7 days / 1 week)(1 day / 24 hours)(60 min / 1 h)(60 sec / 1 min)
C) (7 days / 1 week)(24 hours / 1 day)(60 min / 1 hour)(60 sec / 1 min)
D) (7 days / 1 week)(24 hours / 1 day)(1 hour / 60 min)(60 sec / 1 min)
- Dimensional analysis enables chemists to _____.
A) convert between equivalent units
B) avoid using base units
C) make calculations more precise
D) omit units from their results
- Which of the following is NOT a conversion factor?
A) 12 eggs = 1 dozen B) 30 lbs.
C) 1 km/1,000 m D) 60 miles per hour
E) 4 apples per week
- How do you get units (or numbers) to cancel out?
A) They are multiplied.
B) They are matched side by side.
C) The unit is on both the top and bottom of the fraction.
D) They are both on the bottom of the fractions.