

Kidney Filtering Activity – Filtering Worksheet How Much Does the Kidney Filter?

The kidneys are almost as busy as the heart! They process 45 liters of blood per day and remove about 1.5 liters of waste per day. Over a lifetime that can really start to add up.

- 1) What if you wanted to find out how many liters of blood the kidneys processed in one year?

You need to multiply the number of liters of blood the kidneys process in a day _____ and the number of days in one year _____ to get the number of liters of blood processed in one year.

_____ x _____ = _____ liters of blood

- 2) What if you wanted to find out how many liters of waste the kidneys removed in one year?

You need to multiply the number of liters of waste the kidneys removed in a day _____ and the number of days in one year _____ to get the number of liters of waste the kidneys remove in one year.

_____ x _____ = _____ liters of waste

- 3) What if you lived to be one hundred years old? How many liters of blood will your kidneys have processed?

_____ x _____ = _____ liters of blood

- 4) What if you lived to be one hundred years old? How many liters of waste will your kidneys have removed?

_____ x _____ = _____ liters of waste

Math Challenge

- 5) 45 liters is about 12 gallons. Can you figure out how many gallons of blood the kidneys process in a day? In one year? 100 years?

_____ x _____ = _____ liters of blood in one day

_____ x _____ = _____ liters of blood in one year

_____ x _____ = _____ liters of blood in 100 years

- 6) 1.5 liters is about 0.4 gallons. Can you figure out how many gallons of waste the kidneys remove in a day? In one year? 100 years?

_____ x _____ = _____ liters of waste in one day

_____ x _____ = _____ liters of waste in one year

_____ x _____ = _____ liters of waste in 100 years