

Divide Decimals by Decimals



Before you can divide by a decimal, multiply the divisor and dividend by a power of 10 so that the divisor is a whole number. Then you are ready to divide.

Divide $4.2\overline{)7.14}$

Count the number of decimal places in the divisor.

$$4.2\overline{)7.14}$$

↓

1 decimal place

Move the decimal point in the divisor and in the dividend that many places to the right.

$$42\overline{)71.4}$$

Rewrite the problem and divide.

$$\begin{array}{r} 1.7 \\ 42\overline{)71.4} \\ \underline{-42} \\ 294 \\ \underline{-294} \\ 0 \end{array}$$

Multiply to check. Use the numbers in the original problem.

$$\begin{array}{r} 1.7 \leftarrow \text{quotient} \\ \times 4.2 \leftarrow \text{divisor} \\ \hline 34 \\ + 680 \\ \hline 71.4 \leftarrow \text{dividend} \end{array}$$

15. $80.95 \div 4.7 =$ _____

16. $1,194.6 \div 63.1 =$ _____

Divide. Round to the nearest hundredth.

17. $9.1\overline{)5.24}$

18. $7.6\overline{)13.89}$

19. $0.38\overline{)24.71}$

20. $4.25\overline{)36.2}$

21. $18.3\overline{)7.903}$

22. $6.08\overline{)427.45}$

23. $8.094 \div 0.24 =$ _____

24. $59.286 \div 8.71 =$ _____

Problem Solving

25. During a hurricane, 18.6 inches of rain fell in 6.5 hours. To the nearest tenth of an inch, what was the average rainfall per hour?

26. The eye of a hurricane moved 117.5 miles in 8.25 hours. To the nearest hundredth of a mile, what was the average distance the eye moved per hour?
