

Name _____

Date _____

Mr. Tallman

Lesson #19 - Dividing Decimals

Recall:

- When dividing decimals with the SAME SIGN, the quotient is Positive.
- When dividing decimals with DIFFERENT SIGNS, the quotient is Negative.

↑ Inside → outside

Example 1) Find the quotient: $60.102 \div 6.3$

<u>Steps for Dividing Decimals</u>	
Steps	Example
1) Write the division problem as a long division problem.	$6.3 \overline{)60.102}$
2) Turn the number on the outside of the long division (the divisor) into an integer by moving the decimal point to the right however many places are needed.	$63 \overline{)601.02}$
3) Move the decimal place of the number on the inside of the long division (the dividend) the same number of places to the right as the divisor. Bring the decimal point up.	9.54 $63 \overline{)601.02}$ $\underline{-5670}$ 340 $\underline{-315}$ 252 $\underline{-252}$ 0
4) Begin dividing.	0
5) Use integer division rules to determine the sign of your answer.	9.54

Example 2) Divide: $-6 \div 1.2$

$$\begin{array}{r} 5. \\ 1.2 \overline{) -6.0} \\ \underline{-6.0} \\ 0 \end{array}$$

(-5)

Now, You Try! Find the quotient.

3) $1.6 \div 0.04$

$$\begin{array}{r} 40. \\ 0.04 \overline{) 1.60} \\ \underline{1.60} \\ 00 \\ \underline{00} \\ 0 \end{array}$$

(40)

4) $0.632 \div 0.79$

$$\begin{array}{r} 0.8 \\ 0.79 \overline{) 0.632} \\ \underline{0.632} \\ 0 \end{array}$$

(0.8)

5) $-13 \div (-0.65)$

$$\begin{array}{r} 20. \\ 0.65 \overline{) 13.00} \\ \underline{-13.00} \\ 00 \\ \underline{-00} \\ 0 \end{array}$$

(20)

6) $-4.365 \div (-4.5)$

$$\begin{array}{r} 0.97 \\ 4.5 \overline{) 4.365} \\ \underline{-4.05} \\ 315 \\ \underline{-315} \\ 0 \end{array}$$

(0.97)

7) $0.3744 \div 1.56$

$$\begin{array}{r} 0.24 \\ 1.56 \overline{) 0.3744} \\ \underline{-312} \\ 624 \\ \underline{-624} \\ 0 \end{array}$$

(0.24)

8) $-0.0108 \div (-2.7)$

$$\begin{array}{r} 0.004 \\ 2.7 \overline{) 0.0108} \\ \underline{-108} \\ 0 \end{array}$$

(0.004)

9) Rebecca's bank statement shows a deduction of \$1.50 taken out of her account each week. How many weeks will it take before the total deduction is -\$18?

$$-18 \div -1.50$$

$$\begin{array}{r} 12. \\ -1.50 \overline{) 18.00} \\ \underline{-150} \\ 300 \\ \underline{-300} \\ 0 \end{array}$$

12 weeks

10) Over 6 months, Fiona used her online bank account to pay a total of \$274.50 for her cell phone services. Her cell phone costs the same amount each month. How much did she withdraw from her account each month to pay for her cell phone service?

$$-274.50 \div 6$$

$$\begin{array}{r} 45.75 \\ 6 \overline{) 274.50} \\ \underline{-240} \\ 34 \\ \underline{-30} \\ 45 \\ \underline{-42} \\ 30 \\ \underline{-30} \\ 0 \end{array}$$

She withdrew \$47.75 per month

11) On average, Michelle's car consumes 23.5 gallons of gas per hour. If Michelle goes on a trip and her car consumes 58.75 gallons of gas, how long, in hours, was her trip?

$$-58.75 \div -23.5$$

2.5 hours

$$\begin{array}{r} 2.5 \\ 23.5 \overline{) 58.75} \\ \underline{-470} \\ 1175 \\ \underline{-1175} \\ 0 \end{array}$$

Challenge

Jackson works for the local contractor and had to stop working each time they lost power until the electric company could fix the problem. The contractor was losing \$2,358.75 per hour that there was no electricity. How much money did he lose on Day 1?

		Time Start	Time End
Day 1	Power Outage 1	7:15 AM	11:45 AM
Day 2	Power Outage 2	12:30 PM	2:15 PM

