Check Your Answers on Dividing Decimals!

Recall that division is the inverse operation of multiplication. It is possible to verify the answer by multiplying the answer (quotient) by the divisor to show that it produces the dividend.

1. 0.2 $0.6 \div 3 = 3\overline{)0.6}$ (divisor: 3; quotient: 0.2; dividend: 0.6) — If there is a decimal point in the dividend only, the decimal point in the quotient will be in that same position vertically.

2. 42 $8.4 \div 0.2 = 0.2\overline{)8.4} = 2.\overline{)84}$ — If there is a decimal in the divisor, multiply by a power of 10 to convert the divisor to a whole number. The dividend must also be multiplied by that same number. Multiplying by a power of ten moves the decimal point in both the divisor and dividend to the right.

3. 300 $9 \div 0.03 = 0.03\overline{)9.00} = 3.\overline{)900}$ — Add zeros as place holders when necessary.

4. 3400 $6.8 \div 0.002 = 0.002\overline{)6.800} = 2.\overline{)6800}$ — Again the divisor should be a whole number.

5. 20 $0.1 \div 0.005 = 0.005\overline{)0.100} = 5.\overline{)100}$ — Again add zeros as place holders if needed.

6. 0.03 $0.12 \div 4.0 = 4.0\overline{)0.12}$ — No need to move the decimal in this example although you will get the same answer if you did!

7. 20,010 $32.016 \div 0.0016 = 0.0016\overline{)32.0160} = 16.\overline{)320160}$ — Yes!! Great work!

8. 0.625 liters $2.5 \div 4 = 4.\overline{)2.500}$ — You can verify your answer by multiplying!

9. 5 tablets $1.25 \div 0.25 = 0.25\overline{)1.25} = 25.\overline{)125}$, -125, 0 — So you knew the answer before dividing? No problem!

10. 26 tablets $6.5 \div 0.25 = 0.25\overline{)6.50} = 25.\overline{)650}$, -50, 150, -150, 0 — Although we would also use a calculator for most long division problems, you should be able to divide without a calculator, especially in a simple problem like this!

Perfect score? Yes! You've got this!! You're ready to move on to the next section!!!