

Name: Key

4th Grade Notes 6.2 Estimate Quotients Using Compatible Numbers p. 183

REMINDER: "About" means estimate.

-Compatible numbers are numbers that are evenly divisible (no remainders) and are easy to divide in your head.

Ex: $360 \div 4$ is easy because you can divide 36 by 4 in your head with no remainder ($36 \div 4 = 9$).

-To estimate quotients, use compatible numbers.

1. Single digits stay the same.

2. Look at the last 2 places (to the left) of the bigger number. Ask if those numbers are divisible by the single digit. If not, ask, "What is the closet number that is evenly divisible by the single digit and is lower?" Use that number (**must** be lower).

3. The other places will become zeros.

4. Divide mentally.

Ex: $365 \div 3$

$360 \div 3 = 120$
now it's
easy to
do in your
head

1. 3 stays the same
2. Look at 36 (the last two places to the left). Is 36 divisible by 3? Yes, so use it.
3. The 5 becomes a zero.
4. Divide.

Ex: $731 \div 8$

$720 \div 8 = 90$

1. 8 stays the same
2. Look at 73 (the last two places to the left). Is 73 divisible by 8? No, so what is the closest number to 73 that is divisible by 8? 72, so use that.
3. The 1 becomes a zero.
4. Divide.

Ex: $2,678 \div 5$

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 $2,500 \div 5 = 500$

1. 5 stays the same
2. Look at 26 (the last two places to the left). Is 26 divisible by 5? No, so what is the closest number to 26 that is divisible by 5? 25, so use that.
3. The other numbers (78) both become zeros.
4. Divide.