Warm up Grade 6

Date: __Dec 5__

Test

Dec 10

D M S B Repeat

Show work to find the product and quotient. (Use estimation to determine where the decimal place must go)

1) 12.473 ⊗ 7

multiply

$$12.473$$
$$\times 7$$
$$87.311$$

2) 3.618 ÷ 3

$$1.206$$

$$3\overline{)3.618}$$
$$\underline{-3}$$
$$06$$
$$\underline{-6}$$
$$01$$
$$\cdot0$$
$$18$$
$$\underline{-18}$$
$$0$$

2) Given 7.005 67, what are the place values for each "7" and how

ones   hundredthousandths

many times larger is one to the other?

On test

×100 000
×10 000
×1000
×100
×10

7. 00567
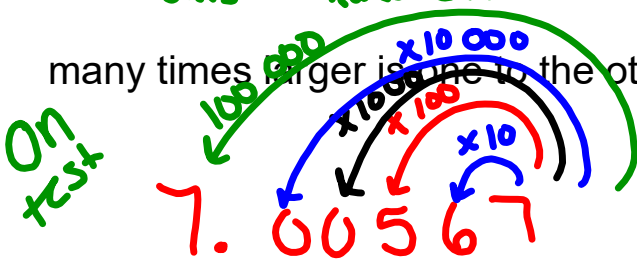
7 ones is 100 000 times larger than
7 hundredthousandths

Warm up Grade 6

Date: _____

Show work to find the product and quotient. (Use estimation to determine where the decimal place must go)

1) 12.473 x 7

$$12.473$$
$$\times \quad 7$$
$$87.311$$

Est. 12×7
84

2) 3.618 ÷ 3

Est
3 ÷ 3
= 1

$$3\overline{)3.618} = 1.206$$
-3
06
-6
01
-0
18
-18
0

2) Given 7.005 67, what are the place values for each "7" and how many times larger is one to the other?

1000

5 tenths

TIP 4. Divide. Multiply to check your answers.
⭐ 27.025 ÷ 5   b) 3.42 ÷ 6   ⭐ 7.735 ÷ 7
d) 16.072 ÷ 8   ⭐ 30.9 ÷ 5   f) 3.438 ÷ 6

a) Step 1: Estimate

$25 \div 5 = 5$

Step 3:

$27.025 \div 5 = 5.405$

Step 2:
Actual
Answer

```
5 | 27025      5 x 4000
     20000
  -   7025      5 x 1000
      5000
      2025      5 x  400
  -   2000
        25      5 x    5
  -     25
         0        5405
```

Step 4:
Check by Multiplying

$5.405 \times 5 = 27.025$

b)
```
      0.57
   6 | 3.42
      30↓
       42
      -42
        0
```
$3.42 \div 6 = 0.57$

c)
```
        1.105
   7 | 7.735
       7↓
       07
       -7
        03
       -0
        35
       -35
         0
```
$7.735 \div 7 = 1.105$

d)
```
        2.009
   8 | 16.072
      -16↓
        0 0
       - 0
         07
        - 0
          72
         -72
           0
```
$16.072 \div 8 = 2.009$

e)
```
      6.18
   5 | 30.9 0
      -30↓
        0 9
       - 5
         4 0
        - 40
           0
```
$30.9 \div 5 = 6.18$

f)
```
       0.573
   6 | 3.438
      -3 0↓
        43
       -42
         18
        -18
          0
```
$3.438 \div 6 = 0.573$

⚠️ 5. Estimate to choose the correct quotient for each division question.

Question		Possible Quotients		
a)	8.124 ÷ 6 6÷6=1	(1.354)	13.54	135.4
b)	37.92 ÷ 3 30÷3=10	0.1264	1.264	(12.64)
c)	7.624 ÷ 8 7÷8 less than 1	(0.953)	9.53	95.3

6. Aqpik Peter is a young Inuit speed skater from Nunavut. He is one of 3 First Nations athletes being showcased for the 2010 Vancouver Olympics. At practice, Aqpik skated 2.75 km in 5 min. About how far did Aqpik skate in 1 min?

```
      0.55
   5 | 2.75
      .25↓
        25
       -25
         0
```

Aqpik skated
0.55 km in
1 min.

7. Eric cycled 2.25 km in 5 min.
Josie cycled 2.72 km in 8 min.
Who travelled farther in 1 min?
Show your work.

Eric
$$5 \overline{)2.25} = 0.45$$
$$-20$$
$$25$$
$$-25$$
$$0$$

Eric 0.45 km in 1min

Josie
$$8 \overline{)2.72} = 0.34$$
$$8 4$$
$$32$$
$$-32$$
$$0$$

Josie travelled 0.34 km in 1min

Eric travelled further

8. Sharma paid $58.50 to board her cat at a kennel in Yellowknife for 5 days.
Her friend Miles paid $12.50 each day to board his cat at a different kennel for 5 days.
Who paid the lesser amount?
Explain how you know.

Sharma paid $11.70 each day which is less than $12.50
Sharma paid less.

Sharma
$$5 \overline{)58.50} = 11.70$$
$$-5$$
$$08$$
$$-5$$
$$35$$
$$-35$$
$$00$$

9. The decimal point in some of these quotients is in the wrong place. Identify the mistakes, then write each quotient with the decimal point in the correct place.
a) 44.8 ÷ 8 = 0.56   40÷8=5
b) 14.805 ÷ 5 = 2.961 ✓
c) 3.15 ÷ 6 = 5.25
d) 8.127 ÷ 1 = 0.8127

a) 5.6
c) 3÷6 is smaller than 1
   0.525
b) 15÷5=3 over
d) 8÷1=8
d) 8.127

10. A student divided 1.374 by 4 and got 3.435.
a) Without dividing, how do you know the answer is incorrect?
b) What do you think the student did wrong?
c) What is the correct answer? How can you check?

a) 1÷4 is going to be smaller than 1
b) Placed the decimal in the wrong spot
c) 1.374 ÷ 4 = 0.3435

$1 ÷ 4 = 0.25

$$4 \overline{)1.374} = 0.3435$$
$$-12$$
$$17$$
$$16$$
$$14$$
$$-12$$
$$20$$
$$-20$$
$$0$$

11. Write a story problem that can be solved by dividing 14.28 by 3.
Trade problems with a classmate and solve your classmate's problem.

Kim paid $14.28 for 3 dozens of cookies. How much did she pay for 1 dozen?

12. A square park has a perimeter of 14.984 km.
How long is each side of the square?

P = 4 × Side
Side = P ÷ 4

14.984 ÷ 4

Each side is 3.735 km long

$$4 \overline{)14.940} = 3.735$$
$$-12$$
$$29$$
$$-28$$
$$14$$
$$-12$$
$$20$$
$$-20$$
$$0$$

13. In good weather, Hannah rides her bike to school and back each day.
One week, Hannah rode her bike on 4 days.
That week, Hannah rode 10.832 km in total.
The following week, she rode her bike all 5 days.
How far did Hannah ride the second week?

Find km per day

$$4 \overline{)10.832} = 2.708$$
$$-8$$
$$28$$
$$28$$
$$03$$
$$-0$$
$$32$$
$$-32$$
$$0$$

Hannah drives 2.708km each day

For 5 days

$$2.708$$
$$\times \quad 5$$
$$13.540$$

Hannah drives 13.54 km in 5 days

Ch. 3   Lesson 6   Long Division

This is the one I use

Dividing decimals by a whole number

$$13.45 \div 4$$

Dividend   Divisor

Same as what we have been doing with long division.

Carrying zeros

● Divide the decimal number by considering it as a whole number by the given whole number.

$$4 \overline{\smash{)}13.45}$$

Always estimate to see if the quotient is reasonable

$1 \times 4 = 4$
$2 \times 4 = 8$
$3 \times 4 = 12$
$4 \times 4 = 16$
$5 \times 4 = 20$
$6 \times 4 = 24$
$7 \times 4 = 28$
$8 \times 4 = 32$
$9 \times 4 = 36$

● Mark the decimal point in the quotient such that it has the same number of decimal places as in the decimal number (dividend).

$$
\begin{array}{r}
3.3625 \\
4 \overline{\smash{)}13.4500} \\
-12 \\
\hline
14 \\
-12 \\
\hline
25 \\
-24 \\
\hline
10 \\
-8 \\
\hline
20 \\
-20 \\
\hline
0
\end{array}
$$

Then divide normally

Then repeat

If you have a remainder, you can always add zeros to the end of dividend, and it does not change the number.

No remainders but decimal parts

$$9.467 \div 5$$

$$
\begin{array}{r}
1.8934 \\
5 \overline{\smash{)}9.4670} \\
-5 \\
\hline
4\ 4 \\
-40 \\
\hline
46 \\
-45 \\
\hline
17 \\
-15 \\
\hline
20 \\
-20 \\
\hline
0
\end{array}
$$

$$9.467 \div 5 = 1.8934$$

Class / Homework

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#~~abc~~

#2)abc *Do long divisin*

#3)abc●

#4)

#5) abcd *Extra*

#6

#8 Bonus

Test

~~Friday~~

~~Dec 6~~ *Moved* **Dec 10**

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TIP **Practice** ....

1. Estimate to choose the correct quotient for each division question.

	Question	Possible Quotients		
a)	4.4 ÷ 5	0.88	8.8	88
b)	10.32 ÷ 6	0.172	1.72	17.2
c)	87.2 ÷ 4	0.218	2.18	21.8

2. Divide. Estimate to place the decimal point.
   - a) 8.235 ÷ 6
   - b) 12.6 ÷ 5
   - c) 39.77 ÷ 2
   - d) 88.2 ÷ 5
   - e) 2.367 ÷ 4
   - f) 4.573 ÷ 5

3. Divide. Write each quotient to the same number of decimal places as there are in the dividend.
   - a) 3.05 ÷ 2
   - b) $49.67 ÷ 6
   - c) 6.1 ÷ 9
   - d) 1.189 ÷ 3
   - e) 24.73 ÷ 9
   - f) $26.53 ÷ 6

4. In a snail-racing contest, Noba's snail crawled 1.677 m in 5 min. About how far did the snail travel each minute?

5. Check each division below. For each incorrect quotient, explain the error, then write the correct quotient.

   a) $1.44 \div 6 = 0.24$

   b) $\$15.97 \div 5 = \$3.194$

   c) $4.422 \div 3 = 14.74$

   d) $17.27 \text{ L} \div 3 = 5.756 \text{ L}$

6. Richard divided a 1.954-L bottle of spicy tomato juice equally among 5 glasses. How much juice is in each glass?

7. Marina packed eight 2.54-L bottles of fruit juice for a 3-day camping trip to Beauvais Lake Provincial Park in Alberta. About how many litres of fruit juice does that allow for each day?

8. Three friends rent a movie for $6.49 and buy a package of popcorn for $1.82. They share the cost equally. How much should each person pay? Show your work.