



Warm up Grade 6

Test Review

Date: Dec. 9

Test is
Tomorrow

Test Review

1) Write the number form of 3 and 17 hundred-thousandths

3. 0 0 0 1 7

2) How are the red digits related?

0.0^{hundredths}86^{hundred-thousandths}28

8 hundredths is 1000 times larger than 8 hundred-thousandths

3) Estimate 7.236×4

7 $\times 4 = 28$ underestimate

4) Place the decimal in the correct place (Use estimation to show your thinking)

a) $6.32 \times 7 = 44.24$

$6 \times 7 = 42$

b) $39.963 \times 4 = 159.852$

$40 \times 4 = 160$

c) $49.44 \div 4 = 12.36$

$48 \div 4 = 12$

d) $51.664 \div 8 = 6.458$

$48 \div 8 = 6$

e) $12 \div 5 = 2.40$

$10 \div 5 = 2$

5) Find the actual product or quotient

a) 0.785×9

$$\begin{array}{r} 0.785 \\ \times 9 \\ \hline 7.065 \end{array}$$

b) 21.36×4

$$\begin{array}{r} 21.36 \\ \times 4 \\ \hline 85.44 \end{array}$$

c) $3.475 \div 2$

$$\begin{array}{r} 1.7375 \\ 2 \overline{) 3.4750} \\ \underline{-2} \\ 14 \\ \underline{-14} \\ 07 \\ \underline{-6} \\ 09 \\ \underline{-8} \\ 00 \\ \underline{-0} \\ 00 \end{array}$$

Homework Solutions

Practice

1. Divide.

a) $0.28 \div 4$

b) $0.042 \div 7$

c) $0.015 \div 3$

d) $0.024 \div 6$

e) $0.16 \div 8$

f) $0.0036 \div 9$

$$\begin{array}{r} 0.07 \\ 4 \overline{) 0.28} \\ \underline{-28} \\ 0 \end{array}$$

$$\begin{array}{r} 0.006 \\ 7 \overline{) 0.042} \\ \underline{-42} \\ 0 \end{array}$$

$$\begin{array}{r} 0.005 \\ 3 \overline{) 0.015} \\ \underline{-15} \\ 0 \end{array}$$

$$\begin{array}{r} 0.004 \\ 6 \overline{) 0.024} \\ \underline{-24} \\ 0 \end{array}$$

$$\begin{array}{r} 0.02 \\ 8 \overline{) 0.16} \\ \underline{-16} \\ 0 \end{array}$$

$$\begin{array}{r} 0.0004 \\ 9 \overline{) 0.0036} \\ \underline{-36} \\ 0 \end{array}$$

TIP

2. Find each quotient. What patterns do you see?

a) $0.9 \div 3 = 0.3$ b) $0.56 \div 7 = 0.08$ $0.108 \div 9$

$0.09 \div 3 = 0.03$ $0.056 \div 7 = 0.008$ $0.0108 \div 9$

$0.009 \div 3 = 0.003$ $0.0056 \div 7 = 0.0008$ $0.00108 \div 9$

$\rightarrow 0.00012$

$\rightarrow 0.012$

$\rightarrow 0.0012$

$\rightarrow 0.00012$

3. Quincy has 0.926 m of string.
Suppose he cuts the string into 4 equal lengths.
What is the length of each piece of string?

$$\begin{array}{r}
 4 \overline{) 0.9260} \\
 \underline{0.8} \\
 12 \\
 \underline{-12} \\
 06 \\
 \underline{-4} \\
 20 \\
 \underline{-20} \\
 0
 \end{array}$$

The length of
each piece of string
is 0.2315m

4. a) A typical hamster eats 0.084 kg of food a week.
About how much food does a hamster
eat in one day? **He eats 0.012 kg of Food
each day.**
- b) Jiri's hamster was put on a special diet.
Over 5 days, his hamster ate about 0.054 kg of food.
About how much food did Jiri's hamster eat in one day?

$$\begin{array}{r}
 7 \overline{) 0.084} \\
 \underline{-7} \\
 14 \\
 \underline{-14} \\
 0
 \end{array}$$

$$\begin{array}{r}
 5 \overline{) 0.0540} \\
 \underline{0.5} \\
 14 \\
 \underline{-10} \\
 40 \\
 \underline{-40} \\
 0
 \end{array}$$

Jiri's hamster
eats 0.0128 kg
of food each day.

5. Without dividing, choose the correct quotient for each division question. Explain your choice each time. Divide to check.

Question	Possible Quotients		
a) $0.072 \div 9$	0.8	0.08	0.008
b) $0.124 \div 8$	0.155	0.0155	0.00155
c) $0.0045 \div 2$	0.225	0.0225	0.00225

a) 72 thousandths \div 9 = 8 thousandths
 0.008

b)



6. A student said that since $51 \div 3 = 17$, then $0.051 \div 3$ is 0.17. Is the student's reasoning correct? Give reasons for your answer.

$51 \div 3 = 17$
 $0.051 \div 3 = 0.017$

7. Divide. Which strategies did you use to estimate?

- a) $0.66 \div 8$ b) $0.058 \div 4$ c) $0.375 \div 5$
 d) $0.05 \div 8$ e) $0.0061 \div 2$ f) $0.039 \div 6$

a)
$$\begin{array}{r} 0.0825 \\ 8 \overline{) 0.6600} \\ \underline{64} \\ 20 \\ \underline{16} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

b)
$$\begin{array}{r} 0.0145 \\ 4 \overline{) 0.0580} \\ \underline{4} \\ 18 \\ \underline{16} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

c)
$$\begin{array}{r} 0.075 \\ 5 \overline{) 0.375} \\ \underline{35} \\ 25 \\ \underline{25} \\ 0 \end{array}$$

d)
$$\begin{array}{r} 0.00625 \\ 8 \overline{) 0.0500} \\ \underline{48} \\ 20 \\ \underline{16} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

e)
$$\begin{array}{r} 0.0030 \\ 2 \overline{) 0.0060} \\ \underline{6} \\ 0 \\ \underline{0} \\ 0 \end{array}$$

Test outline (Practice Test) Unit 3 Test REVIEW on Decimals

Math 6

Name: _____

1. Write the expanded decimal form & the written form of
 a. 3.250 006 b) 0.200 5

$$3 + 0.2 + 0.05 + 0.000006$$

3 and two-hundred fifty thousandths six millionths

$$0.2 + 0.0005$$

two tenths five ten thousandths

2. HOW ARE THE VALUES OF THE 4'S IN EACH NUMBER RELATED?

a) 0.405 436

tenths ten-thousandths

4 tenths is 1000 times larger than 4 ten-thousandths

3. ESTIMATE EACH PRODUCT AND QUOTIENT. REMEMBER TO SHOW YOUR WORK

a. $21.2 \times 5 =$

$$20 \times 5 = 100$$

B. $37.7 \div 6 =$

$$36 \div 6 = 6$$

c) $7.57 \times 4 =$

$$8 \times 4 = 32$$

$$7 \times 4 = 28$$

4. ESTIMATE TO PLACE THE DECIMAL POINT. REMEMBER TO SHOW YOUR WORK

a. $11.62 \times 3 = 38.46$

Estimate: $12 \times 3 = 36$

b. $1.368 \times 7 = 9.576$

Estimate: $1 \times 7 = 7$

5. MULTIPLY. REMEMBER TO SHOW YOUR WORK

a. 21.68×7

$$\begin{array}{r} 21.68 \\ \times 7 \\ \hline 151.76 \end{array}$$

b) 0.054×5

$$\begin{array}{r} 0.054 \\ \times 5 \\ \hline 0.270 \end{array}$$

c) 8.627×7

$$\begin{array}{r} 8.627 \\ \times 7 \\ \hline 60.389 \end{array}$$

d) 0.415×9

$$\begin{array}{r} 0.415 \\ \times 9 \\ \hline 3.735 \end{array}$$

6. ESTIMATE TO CHOOSE THE CORRECT QUOTIENT FOR EACH DIVISION QUESTION

Question		Possible Quotients		Estimate here
a) $17.836 \div 7$	2.548	0.2548	25.48	$21 \div 7 = 3$
b) $9.42 \div 2$	471	0.471	4.71	$10 \div 2 = 5$
c) $72.72 \div 8$	0.909	90.9	9.09	$72 \div 8 = 9$
d) $45.62 \div 5$	9.124	91.24	0.9124	$45 \div 5 = 9$

7. DIVIDE. ESTIMATE TO PLACE THE DECIMAL POINT. REMEMBER TO SHOW YOUR WORK

(6 points)

a. $23.905 \div 7$

Estimate:

$21 \div 7 = 3$

Show work for actual

$$\begin{array}{r} 3.415 \\ 7 \overline{) 23.905} \\ \underline{-21} \\ 29 \\ \underline{-28} \\ 10 \\ \underline{-7} \\ 35 \\ \underline{-35} \\ 0 \end{array}$$

b. $62.36 \div 2 =$

Estimate:

$62 \div 2 = 31$

Show work for actual

$$\begin{array}{r} 31.18 \\ 2 \overline{) 62.36} \\ \underline{62} \\ 03 \\ \underline{-02} \\ 13 \\ \underline{-12} \\ 16 \\ \underline{-16} \\ 0 \end{array}$$

9) Find the actual quotient

a) $0.0944 \div 4$

$$\begin{array}{r} 0.0236 \\ 4 \overline{) 0.0944} \\ \underline{8} \\ 14 \\ \underline{-12} \\ 24 \\ \underline{-24} \\ 0 \end{array}$$

b) $0.16 \div 2 =$

$$\begin{array}{r} 0.08 \\ 2 \overline{) 0.16} \\ \underline{16} \\ 0 \end{array}$$

10) Jim paid \$11.85 for 3 juice. Leo paid \$21.72 for 6 juice. Who got the better deal on their drinks?

$11.85 \rightarrow$ for 3 juic
 $\times 2$
 $\$23.70 \rightarrow$ for 6 ju
 Jim will pay \$23.70 for six juice
 So Leo Better
 Or

$$\begin{array}{r} 3.95 \\ 3 \overline{) 11.85} \\ \underline{9} \\ 28 \\ \underline{-27} \\ 15 \\ \underline{-15} \\ 0 \end{array}$$

Jim pays \$3.95 each juice

$$\begin{array}{r} 3.62 \\ 6 \overline{) 21.72} \\ \underline{18} \\ 37 \\ \underline{-36} \\ 12 \\ \underline{-12} \\ 0 \end{array}$$

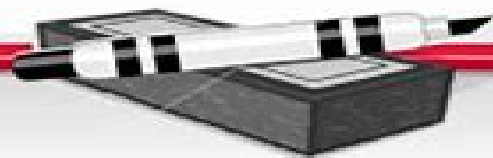
Leo pays
 $\$3.62$ per juice
 So Leo is Better

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Class work

#1) bc	#5) bd	#8	#11
#2)c	#6	#9be	#12be
#3)	#7 bc	#10bc	
#4) be			

#14 be
#15



Unit 3

Show What You Know

LESSON

1

1. Write each number in standard form.
- 2 and 12 ten-thousandths
 - 7 millionths
 - 16 and 46 hundred-thousandths
 - 1 and 51 millionths

2. How are the values of the red digits in each number related?
- 0.626
 - 5.489 48
 - 0.000 355
 - 9.39

3. The Bigleaf Maple tree is native to the Queen Charlotte Islands. It produces winged seeds that can be carried long distances by the wind. A seed has a mass of about 0.126 582 g. Write this number as many ways as you can.



2

4. Estimate. Which strategies did you use? Tell if your estimate is an overestimate or an underestimate.
- 6.23×4
 - 21.872×3
 - 9.49×7
 - $18.39 \div 3$
 - $125.431 \div 5$
 - $19.8 \div 4$

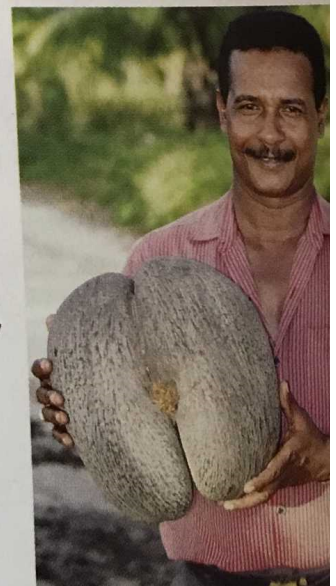
3

5. The decimal point is missing in each product. Use front-end estimation to place each decimal point.
- $6.9 \times 7 = 483$
 - $7.53 \times 3 = 2259$
 - $11.288 \times 4 = 45152$
 - $2.307 \times 5 = 11535$
 - $3.005 \times 4 = 1202$
 - $4.916 \times 5 = 2458$

6. The Giant Fan Palm produces the world's largest seed. A seed has a mass of about 9.075 kg. What is the combined mass of 6 of these seeds?

4

7. Multiply. Estimate to place the decimal point.
- 0.321×6
 - 0.0249×5
 - 0.0043×7
8. The recipe Sebastian wants to make requires 1.5 L of evaporated milk. He has four 0.385-L cans. Does he have enough milk? Show your work.



LESSON
5

9. Estimate each quotient. Which strategies did you use?
- a) $36.57 \div 6$ b) $22.41 \div 4$ c) $4.189 \div 2$
 d) $42.3 \div 9$ e) $8.27 \div 4$ f) $7.1348 \div 8$

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

Question	Possible Quotients		
	a) $9.348 \div 3$	3.116	31.16
b) $52.925 \div 5$	0.105 85	1.0585	10.585
c) $1.888 \div 8$	0.236	2.36	23.6

11. James Steacy of Saskatoon won the silver medal in the men's discus throw at the 2006 Commonwealth Games in Melbourne, Australia. In the finals, James threw the discus 6 times for a total distance of 431.94 m. About how far did he throw each discus?



12. Divide.
- a) $24.15 \div 6$ b) $\$31.87 \div 8$ c) $9.3 \div 6$
 d) $14.523 \text{ L} \div 4$ e) $3.5 \text{ m} \div 9$ f) $\$11.68 \div 9$

13. The Coulter Pine produces the world's most massive pine cones. The combined mass of 8 of these cones is 25.259 kg. Find the mass of one Coulter Pine cone to the nearest hundredth of a kilogram.



14. Divide. Which strategies did you use to estimate?
- a) $0.58 \div 8$ b) $0.066 \div 4$ c) $0.142 \div 8$
 d) $0.0075 \div 6$ e) $0.081 \div 6$ f) $0.09 \div 5$

15. Darcy takes one chewable multivitamin each morning. Each week, Darcy gets 0.0119 g of riboflavin from the vitamins. How much riboflavin is in one multivitamin? Show your work.

UNIT
3 Learning Goal

- use place value to represent numbers less than one thousandth
- multiply decimals by a 1-digit number
- divide decimals by a 1-digit number