



Warm up Grade 6

Date: Dec. 3, 2018



$$\begin{array}{r} 0.0341 \\ \times \quad 5 \\ \hline 0.1705 \end{array}$$

1) Find the product of each (Show work)

a)  $307.568 \times 2$

$$\begin{array}{r} 307.568 \\ \times \quad 2 \\ \hline 615.136 \end{array}$$

b)  $0.0341 \times 5$

2) Estimate  $9.634 \times 7$

$$\begin{array}{r} 10 \times 7 \\ \hline 70 \end{array}$$

3) Find the actual of  $9.634 \times 7$

$$\begin{array}{r} 9.634 \\ \times \quad 7 \\ \hline 67.438 \end{array}$$

3) Write the following in standard form: 62 and 304 millionths

$$62.\underline{0}\underline{0}\underline{0}\underline{3}\underline{0}\underline{4}$$

4) Write the 3.056 04 in expanded form

$$3 + 0.05 + 0.006 + 0.00004$$

↑ stop  
↓ last digit

Ex)

$$32.21$$

$$30 + 2 + 0.2 + 0.01$$

$$\text{Ex) } 0.34$$

$$0.3 + 0.04$$

# Quiz Tomorrow

Multiply the following and show work

a)  $0.24 \times 9$

Estimate  
 $2 \text{ tenths} \times 9$   
 $18 \text{ tenths}$   
 $1.8$

last digit ends in tenths place

$$\begin{array}{r} \overset{2}{0}.\overset{3}{2}4 \\ \times 9 \\ \hline 2.16 \end{array}$$

b)  $0.00321 \times 4$

Estimate  
 $3 \text{ thousandths} \times 4$   
 $12 \text{ thousandths}$   
 $0.012$

$$\begin{array}{r} 0.00321 \\ \times 4 \\ \hline 0.01284 \end{array}$$

$$0.\underline{0} \underline{1} \underline{2}$$

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If you need more

#1ad	#1bcef
#2ad (No chart)	#2becf
#4a	#5ab
#6a,b,c	#7bcef
#7ad	#8

*Quiz tomorrow*

The graphic includes a whiteboard with a red border, a marker tray with three markers, and a pencil holder with several pens and pencils. The whiteboard has a grid background and contains the text and table above. A handwritten note in green says "Quiz tomorrow".

**Practice**



1. Use Base Ten Blocks.

Multiply.

a)  $0.6 \times 4$

b)  $0.12 \times 3$

c)  $0.21 \times 2$

d)  $0.34 \times 5$

e)  $0.215 \times 3$

f)  $0.408 \times 2$

2. Copy this place-value chart.

Multiply. Record each product in the chart.

Ones	Tenths	Hundredths	Thousandths	Ten- Thousandths

a)  $0.005 \times 7$

b)  $0.42 \times 9$

c)  $0.029 \times 5$

d)  $0.0328 \times 9$

e)  $0.276 \times 6$

f)  $0.1036 \times 8$

3. Multiply. Describe your strategies.

a)  $0.9 \times 3$

$0.09 \times 3$

$0.009 \times 3$

b)  $0.25 \times 6$

$0.025 \times 6$

$0.0025 \times 6$

c)  $0.018 \times 4$

$0.0018 \times 4$

$0.00018 \times 4$

What patterns do you see?

a.  $9 \times 3 = 27$  (est)

$0.9 \times 3 = 2.7$

$0.09 \times 3 = 0.27$

$0.009 \times 3 = 0.027$

b.  $25 \times 6 = 20 \times 6 = 120$

$$\begin{array}{r} 5 \times 6 = \underline{30} \\ 150 \end{array}$$

$0.25 \times 6 = 1.50$

$0.025 \times 6 = 0.150$

$0.0025 \times 6 = 0.0150$

c.  $18 \times 4 = 72$

$0.018 \times 4 = 0.072$

$0.0018 \times 4 = 0.0072$

$0.00018 \times 4 = 0.00072$

4. Shona cut a ribbon into 8 equal lengths to finish sewing her Fancy Shawl Regalia. Each piece was 0.158 m long.
- a) How long was the ribbon before Shona cut it?
  - b) How many cuts did she make?



Woman Dancing an Aboriginal Fancy Dance



5.

Juice	Vitamin C per glass (g)
Pure Orange Juice	0.054
Pure Apple Juice	0.0009

- a) Stefan drinks a glass of pure orange juice  
How much Vitamin C does Stefan get from orange juice each week?
- b) Stefan went to Sasamat Outdoor Centre's overnight camp for one week.  
He drank a glass of pure apple juice each morning with his breakfast.  
How much Vitamin C did Stefan get from apple juice that week?



6. Without multiplying, choose the correct product for each multiplication question.

Explain your choice each time. Multiply to check.

	Question	Possible Products		
a)	$0.063 \times 9$	5.67	0.567	0.0567
b)	$0.349 \times 7$	2.443	0.2443	0.024 43
c)	$0.0078 \times 5$	0.39	0.039	0.0039



7. Multiply as you would whole numbers. Estimate to place the decimal point.

a)  $0.359 \times 5$       b)  $0.0112 \times 9$       c)  $0.083 \times 4$

d)  $0.89 \times 6$       e)  $0.0063 \times 7$       f)  $0.097 \times 8$

a.  $359 \times 5 =$      $300 \times 5 = 1500$   
                        $50 \times 5 = 250$   
                        $9 \times 5 = \underline{45}$   
                                   1795

$0359 \times 5 = 1.795$

b.  $0.0112 \times 9 =$      $100 \times 9 = 900$   
                                $10 \times 9 = 90$   
                                $2 \times 9 = \underline{18}$   
   1008

$0.0112 \times 9 = 0.1008$

8. A student said that since  $11 \times 5 = 55$ , then  $0.0011 \times 5$  is 0.55.  
Is the student's reasoning correct?  
Give reasons for your answer.

**Reflect**

How can you use your knowledge of multiplication facts to help you multiply a decimal less than 1 by a 1-digit whole number?