



Warm up Grade 6

Date: Nov. 28



1) Find the product of each (Show work)

a) 307.568×2

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

b) 0.0341×5

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

2) Estimate $9.634 \times 7 \approx 70$

$$\begin{array}{r} \text{9.634} \\ \times 7 \\ \hline 70 \end{array}$$

3) Find the actual of 9.634×7

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

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

$$62. \underline{000} \underline{304}$$

304 stops in the millionths

4) Write the 3.056 04 in expanded form

$$3 + 0.05 + 0.006 + 0.00004$$

Quiz Time

Multiply the following and show work

a) $0.24 \times 9 = 2.16$

$$\begin{array}{r} 3 \\ 24 \\ \times 9 \\ \hline 216 \end{array}$$

b) $0.00321 \times 4 = 0.01284$

Handwritten notes:
 - Red wavy line under "0.00321" with "5th after decimal" written above it.
 - Blue arrows pointing from "5th after decimal" to the 1 in 0.00321 and the 1 in 0.01284.
 - Blue wavy line under "0.01284" with "5th after" written above it.

$$\begin{array}{r} 321 \\ \times 4 \\ \hline 1284 \end{array}$$

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#1bcef no base 10 block just multiply

#2becf no chart multiply

#5ab

#7bcef

#8



Practice



1. Use Base Ten Blocks.

Multiply.

a) 0.6×4

b) 0.12×3

c) 0.21×2

d) 0.34×5

e) 0.215×3

f) 0.408×2

2. Copy this place-value chart.
 Multiply. Record each product in the chart.

Ones	Tenths	Hundredths	Thousandths	Ten- Thousandths

a) 0.005×7

b) 0.42×9

c) 0.029×5

d) 0.0328×9

e) 0.276×6

f) 0.1036×8

3. Multiply. Describe your strategies.

a) 0.9×3

0.09×3

0.009×3

b) 0.25×6

0.025×6

0.0025×6

c) 0.018×4

0.0018×4

0.00018×4

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

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

$0.25 \times 6 = 1.50$

$0.025 \times 6 = 0.150$

$0.0025 \times 6 = 0.0150$

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)	0.063×9	5.67	0.567	0.0567
b)	0.349×7	2.443	0.2443	0.024 43
c)	0.0078×5	0.39	0.039	0.0039



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

a) 0.359×5 b) 0.0112×9 c) 0.083×4

d) 0.89×6 e) 0.0063×7 f) 0.097×8

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 0.0011×5 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?