

Homework/Extension

Step 2: Multiply by 10, 100 and 1,000

National Curriculum Objectives:

Mathematics Year 6: (6F9a) [Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to three decimal places](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Identify whether calculations are true or false when multiplying up to a 2-digit number with up to 2 decimal places by 10, 100 and 1,000.

Expected Identify whether calculations are true or false when multiplying up to a 3-digit number with up to 3 decimal places by 10, 100 and 1,000. Some questions include multiplying by multiples of 10.

Greater Depth Identify whether calculations are true or false when multiplying up to a 3-digit number with up to 3 decimal places by 10, 100 and 1,000. Some questions include multiplying by multiples of 10, 100 or 1,000.

Questions 2, 5 and 8 (Varied Fluency)

Developing Compare the statements by multiplying up to a 2-digit number with up to 2 decimal places by 10, 100 and 1,000.

Expected Compare the statements by multiplying up to a 3-digit number with up to 3 decimal places by 10, 100 and 1,000. Some questions include multiplying by multiples of 10.

Greater Depth Compare the statements by multiplying up to a 3-digit number with up to 3 decimal places by 10, 100 and 1,000. Some questions include multiplying by multiples of 10, 100 or 1,000.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

Developing Prove whether a statement is correct, by multiplying up to a 2-digit number with up to 2 decimal places by 10, 100 and 1,000.

Expected Prove whether a statement is correct, by multiplying up to a 3-digit number with up to 3 decimal places by 10, 100 and 1,000. Question includes multiplying by a multiple of 10.

Greater Depth Prove whether a statement is correct or incorrect, by multiplying up to a 3-digit number with up to 3 decimal places by 10, 100 and 1,000. Question includes multiplying by multiples of 100 and 1,000.

More [Year 6 Decimals](#) resources.

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Multiply by 10, 100 and 1,000

1. Tick to show whether the calculations are true or false.

	T	F
A. $24 \times 1,000 = 2,400$	<input type="checkbox"/>	<input type="checkbox"/>
B. $18.2 \times 100 = 1,820$	<input type="checkbox"/>	<input type="checkbox"/>
C. $13.55 \times 1,000 = 13,550$	<input type="checkbox"/>	<input type="checkbox"/>
D. $6.3 \times 10 = 6.30$	<input type="checkbox"/>	<input type="checkbox"/>



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2. Solve the calculations to complete the statements using $<$, $>$ or $=$.

A. 62.3×100	<input type="checkbox"/>	623×10
B. $29.5 \times 1,000$	<input type="checkbox"/>	2.95×10
C. 1.7×100	<input type="checkbox"/>	$17 \times 1,000$



VF
HW/Ext

3. Hafsa and Ben are multiplying by 10, 100 and 1,000.

Hafsa's calculation: $6.4 \times 1,000$

Ben's Calculation: $6,400 \times 10$



Hafsa

My calculation will give the greatest answer because I am multiplying by a larger number.

Is she correct?
Prove it.



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Multiply by 10, 100 and 1,000

4. Tick to show whether the calculations are true or false.

	T	F
A. $457 \times 1,000 = 457,000$	<input type="checkbox"/>	<input type="checkbox"/>
B. $240 \times 100 = 2,400$	<input type="checkbox"/>	<input type="checkbox"/>
C. $3.05 \times 1,000 = 3,500$	<input type="checkbox"/>	<input type="checkbox"/>
D. $0.05 \times 30 = 1.5$	<input type="checkbox"/>	<input type="checkbox"/>



VF
HW/Ext

5. Solve the calculations to complete the statements using $<$, $>$ or $=$.

A. 623×10	<input type="checkbox"/>	345×20
B. $0.756 \times 1,000$	<input type="checkbox"/>	75.6×10
C. 130×100	<input type="checkbox"/>	720×40



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6. Steph and Sean are multiplying by 10, 100 and 1,000.

Steph's calculation: 320×40

Sean's Calculation: $0.32 \times 1,000$



Steph

Even though Sean is multiplying his number by 1,000, my answer will still be greater than his.

Is she correct?
Prove it.



RPS
HW/Ext

Multiply by 10, 100 and 1,000

7. Tick to show whether the calculations are true or false.

	T	F
A. $70.24 \times 200 = 14,048$	<input type="checkbox"/>	<input type="checkbox"/>
B. $64.19 \times 1,000 = 6,419$	<input type="checkbox"/>	<input type="checkbox"/>
C. $8.1 \times 50 = 405$	<input type="checkbox"/>	<input type="checkbox"/>
D. $45.903 \times 100 = 45,930$	<input type="checkbox"/>	<input type="checkbox"/>



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8. Circle all the numbers below which give an answer greater than 6,250 when multiplied by 100.

62.9	129.6	130.02
6.71	60.05	
19.77	82.05	625.5
602.05	180.8	



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9. Chuan and Gabriel are multiplying by 10, 100 and 1,000.

Chuan's calculation: $101.005 \times 2,000$

Gabriel's Calculation: $1,010.05 \times 200$



Chuan

My calculation will give an answer greater than Gabriel's because I have multiplied by a larger number.

Is he correct?
Prove it.



RPS
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Homework/Extension Multiply by 10, 100 and 1,000

Developing

1. True: B and C. False: A and D.
2. =, >, <
3. She is incorrect. Hafsa's calculation gives an answer of 6,400 whereas Ben's calculation gives an answer of 64,000.

Expected

4. True: A and D False: B and C
5. <, =, <
6. She is correct. Steph's calculation gives an answer of 12,600 whereas Sean's calculation gives an answer of 320.

Greater Depth

7. True: A and C. False: B and D
8. 62.9, 129.6, 130.02, 82.05, 625.5, 180.8 and 602.05
9. He is incorrect. Both Chuan and Gabriel's calculations give the same answer. The answers are equal.