Homework/Extension
Step 4: Multiply Decimals by Integers

National Curriculum Objectives:

Mathematics Year 6: (6F9b) Multiply one-digit numbers with up to two-decimal places by whole numbers

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Match the calculations to the representations provided. Includes multiplying one-digit numbers with up to 2 decimal places by 2, 3, 4 and 5. Pictorial support provided where an exchange takes place.
Expected Match the calculations to the representations provided. Includes multiplying one-digit numbers with up to 3 decimal places by one-digit whole numbers where an exchange takes place. Some pictorial support provided where an exchange takes place.
Greater Depth Tick the correct calculation to the word problem. Includes multiplying one-digit numbers with up to 3 decimal places by one-digit whole numbers where an exchange takes place. Includes multiplying one-digit numbers with up to 3 decimal places by one-digit whole numbers with exchanging. No pictorial support.

Questions 2, 5 and 8 (Varied Fluency)
Developing Tick the correct answer. Includes multiplying one-digit numbers with up to 2 decimal places by 2, 3, 4 and 5. Pictorial support provided where an exchange takes place.
Expected Tick the correct answer. Includes multiplying one-digit numbers with up to 3 decimal places by one-digit whole numbers where an exchange takes place. Some pictorial support provided where an exchange takes place.
Greater Depth Work out the correct answer for each question. Includes multiplying one-digit numbers with up to 3 decimal places by one-digit whole numbers where an exchange takes place. Includes multiplying one-digit numbers with up to 3 decimal places by one-digit whole numbers with exchanging. No pictorial support.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Agree or disagree with a given statement. Includes multiplying one-digit numbers with up to 2 decimal places by 2, 3, 4 and 5 in context. Pictorial support provided where an exchange takes place.
Expected Agree or disagree with a given statement. Includes multiplying one-digit numbers with up to 3 decimal places by one-digit whole numbers where an exchange takes place in context.
Greater Depth Agree or disagree with a given statement. Includes multiplying one-digit numbers with up to 3 decimal places by one-digit whole numbers with exchanging in context. No pictorial support. Includes zeros in decimal places and a 2-step problem.

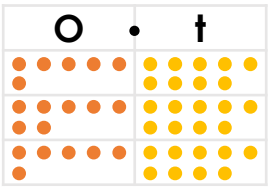
More Year 6 Decimals resources.

Did you like this resource? Don't forget to review it on our website.

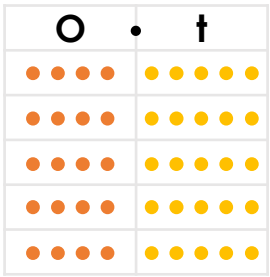
Multiply Decimals by Integers

1. Match the calculations to the correct answers below.

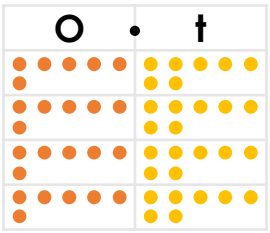
A. 6.9 x 3



B. 4.5 x 5



C. 6.7 x 4



1. 26.8

2. 22.5

3. 20.7

D

VF
HW/Ext

2. A toy car costs £4.96. How much would 3 toy cars cost? Tick the correct bar model below.

A.

£14.78		
£4.96	£4.96	£4.96

B.

£14.98		
£4.96	£4.96	£4.96

C.

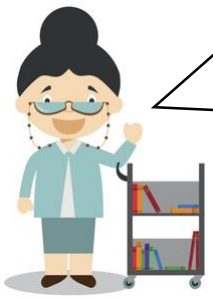
£14.88		
£4.96	£4.96	£4.96

D

VF
HW/Ext

3. Claire has received 3 different deliveries. She wants to calculate the total cost of each delivery.

She says,



From the most expensive to the least expensive delivery, the order of the deliveries should be 3, 1 and then 2.

Is Claire correct? Explain how you know.

£15.56 x 4

Delivery 1			
£15.56	£15.56	£15.56	£15.56

£12.16 x 3

Delivery 2		
£12.16	£12.16	£12.16

£9.96 x 5

Delivery 3				
£9.96	£9.96	£9.96	£9.96	£9.96

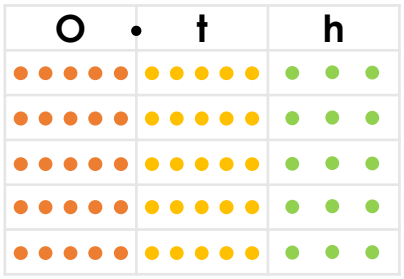
D

RPS
HW/Ext

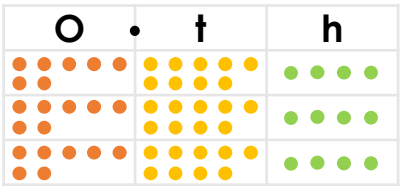
Multiply Decimals by Integers

4. Match the calculations to the correct answers below.

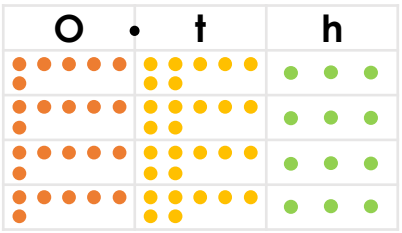
A. 5.53 x 5



B. 7.94 x 3



C. 6.73 x 4



1. 26.92

2. 27.65

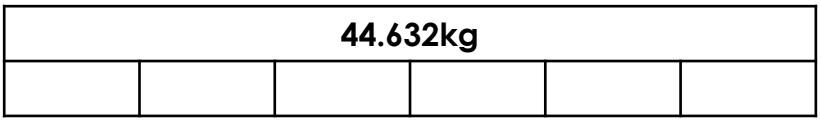
3. 23.82

E

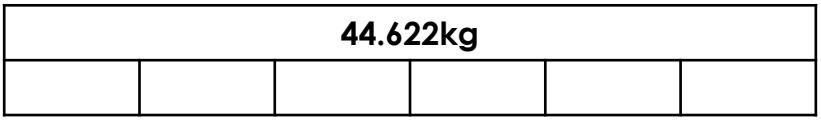
VF
HW/Ext

5. A bag of sand weighs 7.437kg. How much would 6 bags of sand weigh? Tick the correct bar model below.

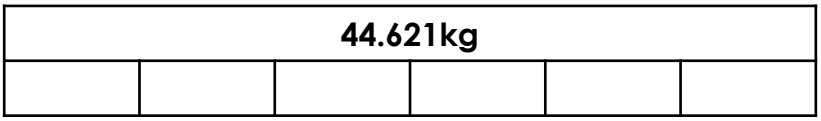
A.



B.



C.



E

VF
HW/Ext

6. Charles has received 3 different deliveries. He wants to calculate the total weight of each delivery.

He says,

From heaviest to lightest, the order of the deliveries should be 3, 1 and then 2.

Delivery 1

13.27kg
x 6

Delivery 2

12.836kg
x 5

Delivery 3

9.196kg
x 7

Is Charles correct? Explain how you know.

E

RPS
HW/Ext

Multiply Decimals by Integers

7. A decorator needs to carry some tins of paint from his van. The total weight of the paint is between 25 and 30L.

Tick the calculation below that reveals the correct amount of paint. How many litres of paint is there?

A. 6.573L x 5

B. 6.479L x 4

C. 5.214L x 7

GD

VF
HW/Ext

8. The total weight of a pile of wood is 6.906kg. How many piles would be needed to reach the weights below?

A. 55.248kg

B. 62.154kg

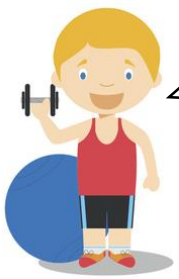
C. 41.436kg

GD

VF
HW/Ext

9. Bradley has received 3 different deliveries of water bottles for the gym. He wants to calculate the total weight of each delivery.

He says,



From heaviest to lightest, the order of the deliveries can be placed in 3 different ways.

Delivery 1

8.562L x 9

Delivery 2

13.506L x 4

Delivery 3

6.753L x 8

Is Bradley correct? Explain how you know.

GD

RPS
HW/Ext

Homework/Extension
Multiply Decimals by Integers

Developing

1. A. 3; B. 2; C. 1
2. C. £14.88
3. Claire is incorrect. The correct order (from most expensive to the least expensive delivery) should be: Delivery 1, Delivery 3 and Delivery 2. Delivery 1 costs £62.24, Delivery 3 costs £49.80 and Delivery 2 costs £36.48.

Expected

4. A. 2; B. 3; C. 1
5. B. 44.622kg
6. Charles is incorrect. The correct order (from heaviest to lightest) should be: Delivery 1, Delivery 3 and Delivery 2. Delivery 1 weighs 79.62kg, Delivery 3 weighs 64.372kg and Delivery 2 weighs 64.18kg.

Greater Depth

7. B. There are 25.916L of paint.
8. A. 8 piles of wood, B. 9 piles of wood, C. 6 piles of wood
9. Bradley is incorrect. There are only two different ways to place the order of the deliveries from heaviest to smallest. The correct order could be: Delivery 1, Delivery 3 and Delivery 2 or Delivery 1, Delivery 2 and Delivery 3. This is because both Delivery 2 and Delivery 3 weigh the same at 54.024L, however, Delivery 1 is heavier at 77.058L.