

# RECALL

1)  $35 \times 10 =$

2)  $0.54 \times 100 =$

3)  $1.403 \times 1000 =$

4)  $29.02 \times 100 =$

5)  $350 \div 10 =$

6)  $639 \div 100 =$

7)  $803 \div 1000 =$

8)  $90.2 \div 10 =$

1)  $473 \div 1000 =$

2)  $0.036 \times 10 =$

3)  $32.5 \div 100 =$

4)  $203 \div 1000 =$

5)  $102.02 \times 1000 =$

6)  $74.83 \div 10 =$

7)  $56.54 \div 0.1 =$

8)  $742.2 \times 0.1 =$

# RECALL ANSWERS

1)  $35 \times 10 = 350$

2)  $0.54 \times 100 = 54$

3)  $1.403 \times 1000 = 1403$

4)  $29.02 \times 100 = 2902$

5)  $350 \div 10 = 35$

6)  $639 \div 100 = 6.39$

7)  $803 \div 1000 = 0.803$

8)  $90.2 \div 10 = 9.02$

1)  $473 \div 1000 = 0.473$

2)  $0.036 \times 10 = 0.36$

3)  $32.5 \div 100 = 0.325$

4)  $203 \div 1000 = 0.203$

5)  $102.02 \times 1000 = 102020$

6)  $74.83 \div 10 = 7.483$

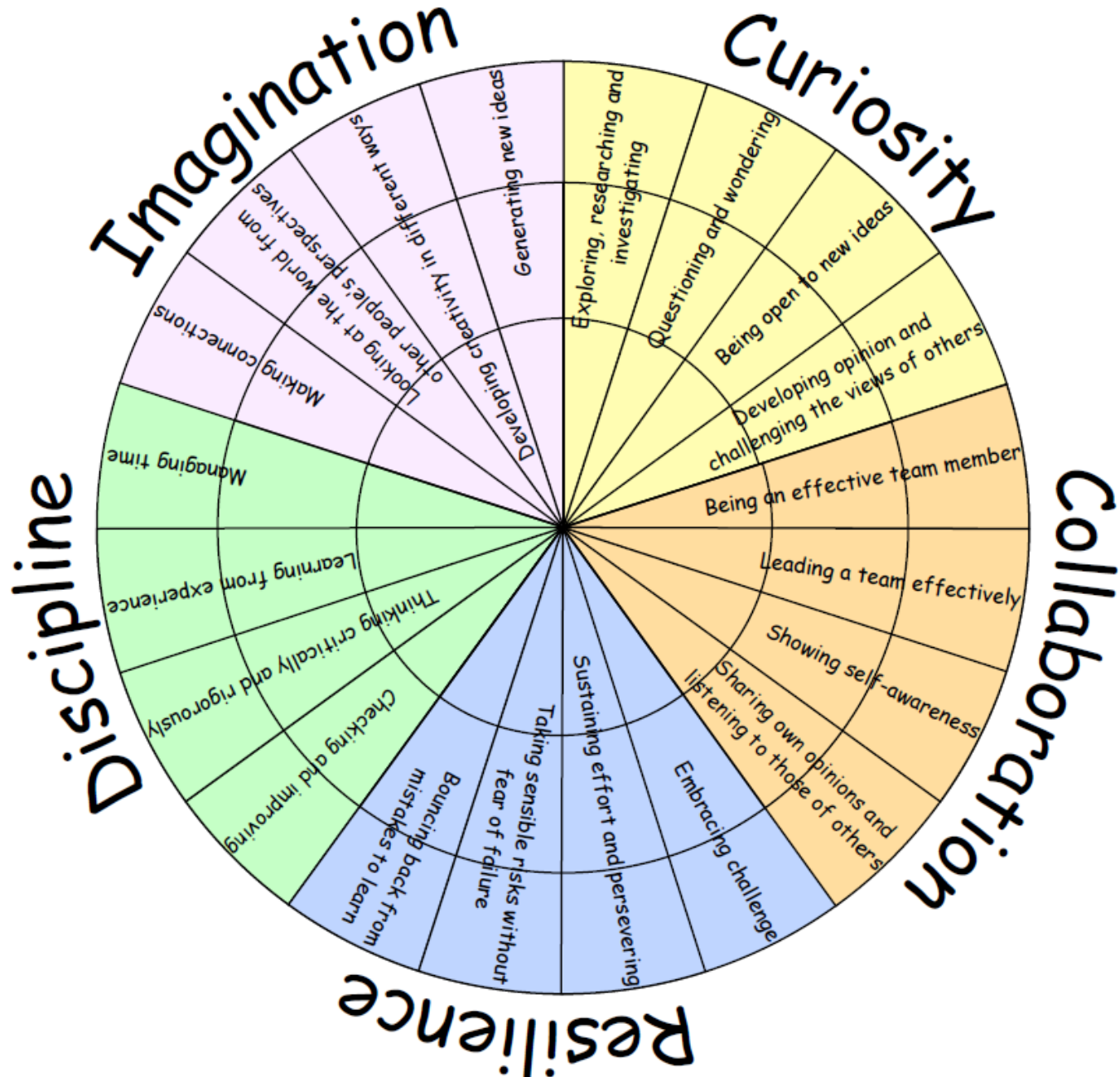
7)  $56.54 \div 0.1 = 565.4$

8)  $742.2 \times 0.1 = 74.22$

# I CAN MULTIPLY DECIMALS BY INTEGERS

Multiplication and Division (7.viii & 9.ii)

# LEARNING HABITS?



# GUIDED PRACTICE

One can has a volume of 0.32 litres.

- 1) What is the total volume of the 4 drinks cans?
- 2) What is the total volume of 40 cans?



How many different ways can you represent these calculations?



# INTELLIGENT PRACTICE



Complete these calculations

1) \_\_\_\_\_ =  $21 \times 3$

2) \_\_\_\_\_ =  $2.1 \times 3$

3) \_\_\_\_\_ =  $0.21 \times 3$

What do you notice?



Complete these calculations

1)  $4.1 \times 2 =$

2)  $6.3 \times 2 =$

3)  $9.4 \times 2 =$

What do you notice?



Complete these calculations

1)  $7.2 \times 2 =$

2)  $7.2 \times 4 =$

3)  $7.2 \times 8 =$

What do you notice?

If you are 'stuck', use 1 chilli to help you!

1)  $10.8 \times 6 =$

2)  $0.075 \times 8 =$

3)  $12.3 \times 1.7 =$



# INTELLIGENT PRACTICE ANSWERS



Complete these calculations

1)  $63 = 21 \times 3$

2)  $6.3 = 2.1 \times 3$

3)  $0.63 = 0.21 \times 3$

What do you notice?



Complete these calculations

1)  $4.1 \times 2 = 8.2$

2)  $6.3 \times 2 = 12.6$

3)  $9.4 \times 2 = 18.8$

What do you notice?



Complete these calculations

1)  $7.2 \times 2 = 14.4$

2)  $7.2 \times 4 = 28.8$

3)  $7.2 \times 8 = 57.6$

What do you notice?

If you are 'stuck', use 1 chilli to help you!

1)  $10.8 \times 6 = 64.8$

2)  $0.075 \times 8 = 0.6$

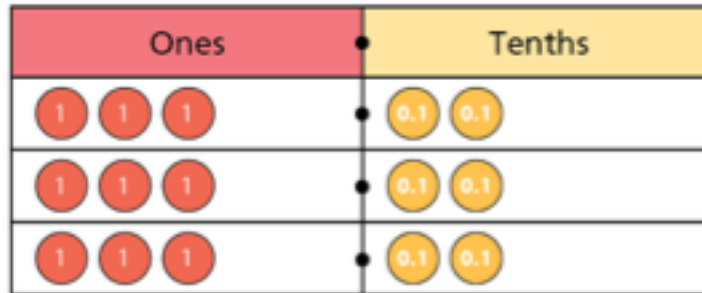
3)  $12.3 \times 1.7 = 20.91$



# DIVE DEEPER 1

1) Use place value counters to solve the calculations shown.

$$3.2 \times 3 =$$



$$4.6 \times 2 =$$



2) Solve the multiplication. Draw your answer.

$$12.2 \times 3 =$$

3) Use long multiplication to work out the calculations.

a)  $4.86 \times 4$

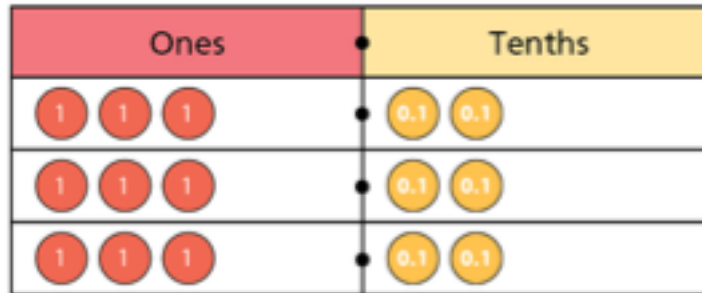
b)  $2.09 \times 6$



# DIVE DEEPER 1 ANSWERS

1) Use place value counters to solve the calculations shown.

$$3.2 \times 3 = 9.6$$



$$4.6 \times 2 = 9.2$$



2) Solve the multiplication. Draw your answer.

$$12.2 \times 3 = 36.6$$

3) Use long multiplication to work out the calculations.

a)  $4.86 \times 4 = 19.44$

b)  $2.09 \times 6 = 12.54$

# DIVE DEEPER 2

4) Predict which multiplication will give the greatest and the smallest products. Explain why.

$$12 \times 0.3$$

$$0.02 \times 32$$

$$21 \times 0.04$$

Complete each calculation to check.

5) Amir is solving  $3.4 \times 4$

He says that, 'To solve this, I did  $34 \times 4$ , which was 136. Then I multiplied my answer by 10 to get an answer of 1,360.'

Do you agree?

Explain why.

6) Use the digits 1, 2, 3 and 4 once each to create a calculation.

$$\underline{\quad} . \underline{\quad} \underline{\quad} \times \underline{\quad}$$

a) How many different products can you make?

b) What is the greatest possible product?

# DIVE DEEPER 2 ANSWERS

4) Predict which multiplication will give the greatest and the smallest products. Explain why.

$$12 \times 0.3 = 3.6$$

$$0.02 \times 32 = 0.64$$

$$21 \times 0.04 = 0.84$$

Complete each calculation to check.

5) Amir is solving  $3.4 \times 4$

He says that, 'To solve this, I did  $34 \times 4$ , which was 136. Then I multiplied my answer by 10 to get an answer of 1,360.'

Do you agree? **No because he has multiplied by ten rather than dividing by ten to make his answer ten times smaller.**

6) Use the digits 1, 2, 3 and 4 once each to create a calculation.

$$\underline{\quad} . \underline{\quad} \underline{\quad} \times \underline{\quad}$$

- a) How many different products can you make?
- b) What is the greatest possible product? **12.84**

# DIVE DEEPER 3



- 1) How tall is each fence panel?
- 2) The panel is 1.2m wide. The whole fence will be made up of 16 panels. How long will the whole fence be?
- 3) What is the area of one fence panel?
- 4) What is the total area of the fence?

# SELF-ASSESSMENT

- Some will even be able to multiply decimals by decimals and explain how it works
- Some will be able to predict and explain what will happen to the answer
- Most will be able to use long multiplication to answer calculations
- All will be able to use a place value chart to answer multiplying decimals by integers