

Homework

Multiply by 4

National Curriculum Objectives:

Mathematics Year 3: (3C6) Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables

Mathematics Year 3: (3C7) Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

Mathematics Year 3: (3C8) Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Match equal representations using knowledge of multiplying by 4. Pictorial support where each digit is represented provided. Up to 12×4 .

Expected Match equal representations using knowledge of multiplying by 4. Up to 12×4 with scaffolding or pictorial support provided.

Greater Depth Match equal representations using knowledge of multiplying by 4. Up to 12×4 with no scaffolding support provided.

Questions 2, 5 and 8 (Varied Fluency)

Developing Identify which calculation is the odd one out using knowledge of multiplying by 4. Pictorial support where each digit is represented provided. Up to 12×4 .

Expected Identify which calculation is the odd one out using knowledge of multiplying by 4. Up to 12×4 with scaffolding support provided.

Greater Depth Identify which calculation is the odd one out using knowledge of multiplying by 4. Up to 12×4 with no scaffolding support provided.

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

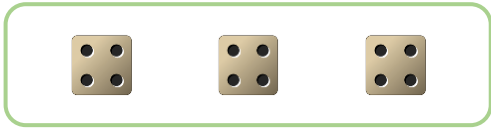
Developing Identify and explain which statement is correct using knowledge of multiplying by 4. Pictorial support where each digit is represented provided. Up to 12×4 .

Expected Identify and explain which statement is correct using knowledge of multiplying by 4. Up to 12×4 with scaffolding support provided.

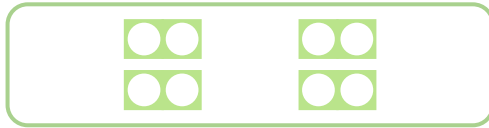
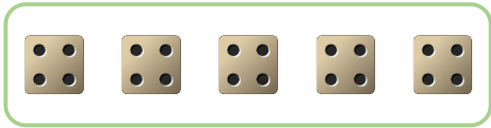
Greater Depth Identify and explain which statement is correct using knowledge of multiplying by 4. Up to 12×4 with no scaffolding support provided.

Multiply by 4

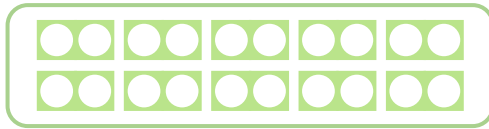
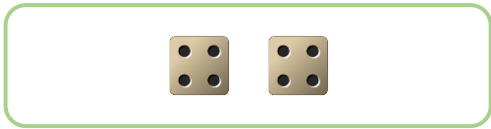
1. Match the equal statements below.



12



20



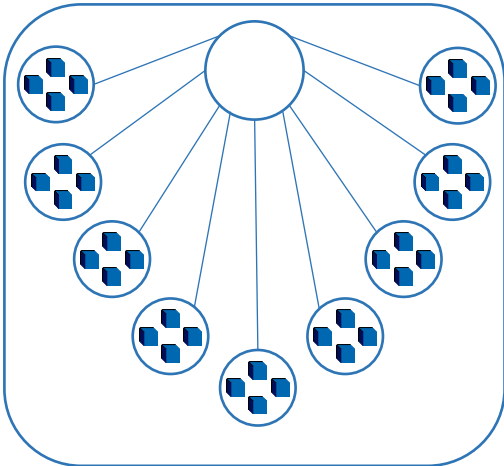
8



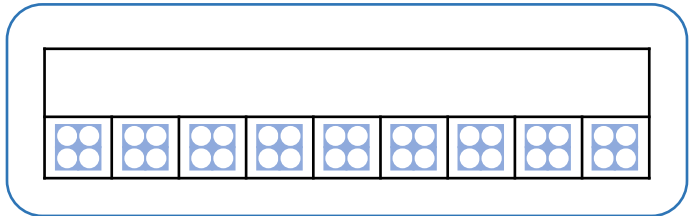
VF
HW/Ext

2. Which representation is the odd one out?

A.



B.



C.

$$4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = \underline{\quad}$$



VF
HW/Ext

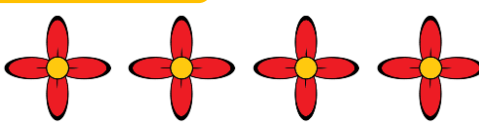
3. Joe and Phoebe are discussing ways to complete the calculation below.

$$7 \times 4 = ?$$



Joey

To solve this calculation I can double 7 and double it again.



To solve this calculation I can do $2 + 2 + 2 + 2 + 2 + 2$.



Phoebe

Who is correct? Convince me.



RPS
HW/Ext

Multiply by 4

4. Match the equal statements below.

4×4



$3 \times 2 \times 2$

12

4×5



$5 \times 2 \times 2$

16

3×4



$4 \times 2 \times 2$

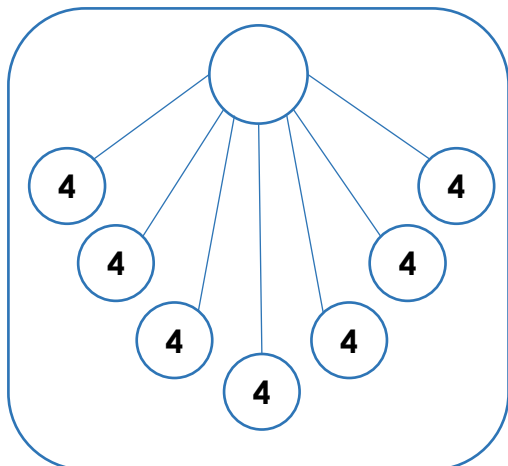
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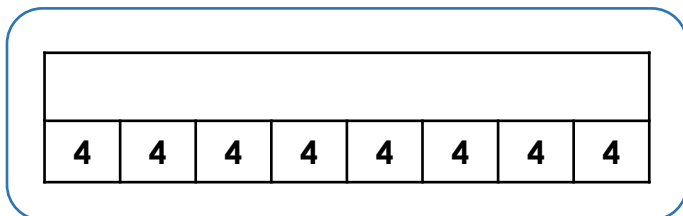
VF
HW/Ext

5. Which representation is the odd one out?

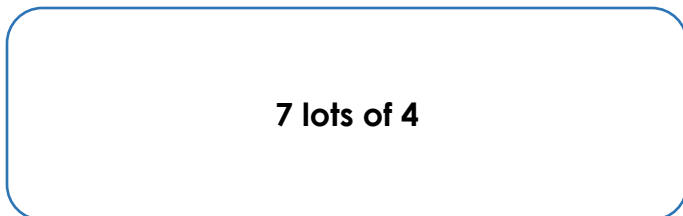
A.



B.



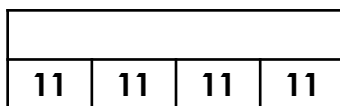
C.



VF
HW/Ext

6. Alice and Frank are discussing ways to complete the calculation below.

$11 \times 4 = ?$



Frank

To solve this calculation I can do 11×2 and then double it.



Alice

To solve this calculation I can do $4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4$

Who is correct? Convince me.



RPS
HW/Ext

Multiply by 4

7. Match the equal statements below and write the answer for each row in the box.

7×4

Four lots of four

$4 \times 2 \times 2$

4×4

Eleven multiplied by four

$7 \times 2 \times 2$

11×4

Seven groups of four

$11 \times 2 \times 2$



VF
HW/Ext

8. Which representation is the odd one out?

A.

A car park has ten cars. Each of the cars has four wheels. How many wheels are there all together?

B.

9×4

C.

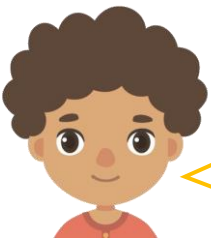
five doubled and doubled again and four doubled and doubled again



VF
HW/Ext

9. Ted and Lily are discussing ways to complete the calculation below.

$8 \times 4 = ?$



Ted

To solve this calculation I can double four and then multiply the answer by two.



Lily

To solve this calculation I can double eight and then double it again.

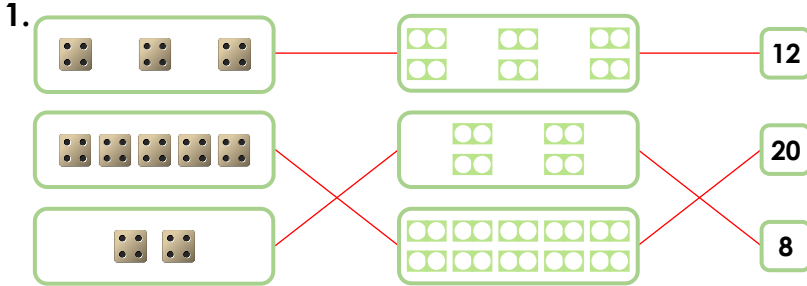
Who is correct? Convince me.



RPS
HW/Ext

Homework Multiply by 4

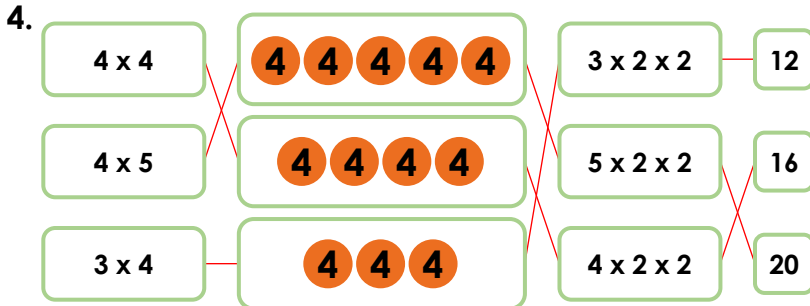
Developing



2. **C**

3. **Joe is correct because 7×4 and 7 doubled and doubled again both equal 28. Phoebe needs to add another 7 lots of 2 or double her answer to get the correct answer.**

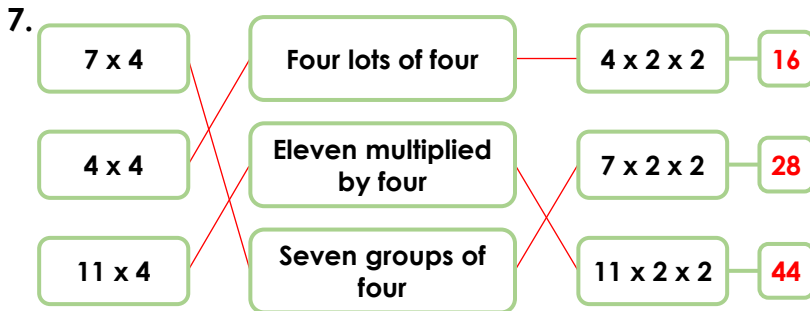
Expected



5. **B**

6. **Both Alice and Frank are correct because 11×4 , 11×2 doubled and $4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4$ all equal 44.**

Greater Depth



8. **A**

9. **Lily is correct because 8×4 and eight doubled and doubled again both equal 32. Ted is incorrect because double 4 is 8 and double 8 is 16 which is the same as 4×4 .**