Homework
Divide 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 connect to *m* objects

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Match representations to calculations that divide by 4 through sharing and grouping to 12 x 4. All questions have pictorial support.
Expected Match representations to calculations that divide by 4 through sharing and grouping to 12 x 4. Scaffolding provided for each question with some pictorial support.
Greater Depth to Create representations to match the calculations that divide by 4 through sharing and grouping to 12 x 4.

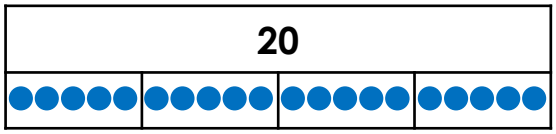
Questions 2, 5 and 8 (Varied Fluency)
Developing Complete comparison statements using symbols by dividing by 4 through sharing and grouping to 12 x 4. All questions have pictorial support.
Expected Complete comparison statements using symbols by dividing by 4 through sharing and grouping to 12 x 4. Scaffolding provided for each question with some pictorial support.
Greater Depth to Complete comparison statements using symbols by dividing by 4 through sharing and grouping to 12 x 4.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Explain which statement is correct when dividing by 4 through sharing and grouping to 12 x 4. Pictorial support provided.
Expected Explain which statement is correct when dividing by 4 through sharing and grouping to 12 x 4.
Greater Depth Explain which statement is correct and draw representations to support answers when dividing by 4 through sharing and grouping to 12 x 4.

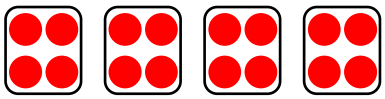
Divide by 4

1. Match the representations to the calculations.

A.



B.



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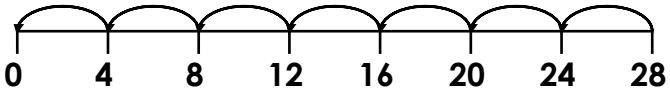


D. 28 ÷ 4 = 7

E. 20 ÷ 4 = 5

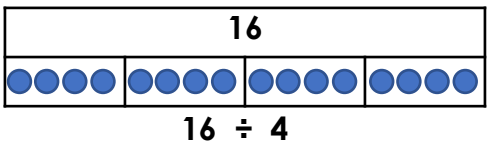
F. 16 ÷ 4 = 4

D

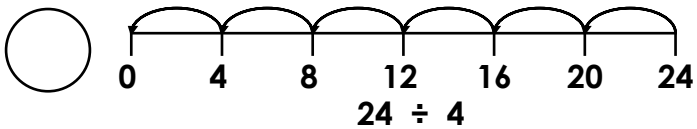
VF
HW/Ext

2. Complete the statements using > < or =.

A.

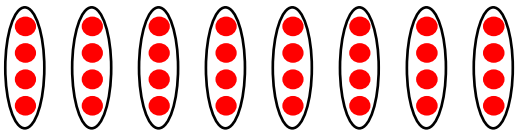


16 ÷ 4

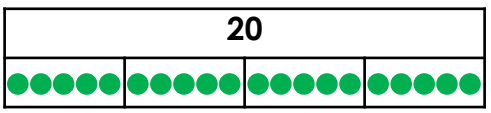


24 ÷ 4

B.



32 ÷ 4

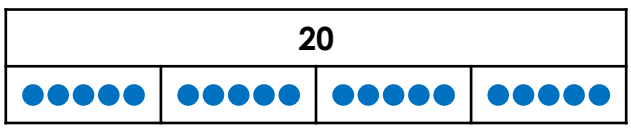


20 ÷ 4

D

VF
HW/Ext

3. Sameena and Josh are discussing a calculation.



This bar model shows that dividing 20 by 4 is equal to 4.

Sameena

Josh

This bar model shows that dividing 20 by 4 is equal to 5.

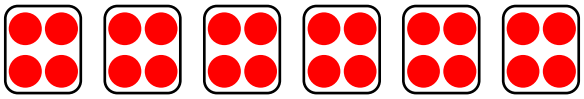
Who is correct? Explain your answer.

D

RPS
HW/Ext

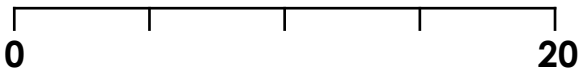
Divide by 4

4. Match the representations to the calculations and complete the calculations.

A. 

B.

36								
4	4	4	4	4	4	4	4	4

C. 

D. 36 ÷ 4 =

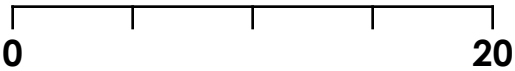
E. 20 ÷ 4 =

F. 24 ÷ 4 =

E

VF
HW/Ext

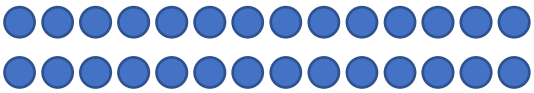
5. Complete the statements using > < or =.

A. 

20 ÷ 4 ○

36			

36 ÷ 4

B. 

28 ÷ 4 ○

24			

24 ÷ 4

E

VF
HW/Ext

6. Helena and Jamie are discussing a calculation.

32			
8	8	8	8

This bar model shows that sharing 32 into 4 groups is equal to 8.

Helena

Jamie

This bar model shows that dividing 32 by 8 is equal to 8.

Who is correct? Explain your answer.

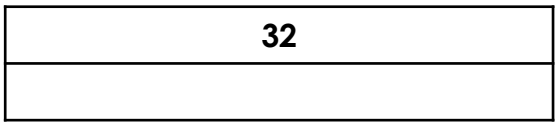
E

RPS
HW/Ext

Divide by 4

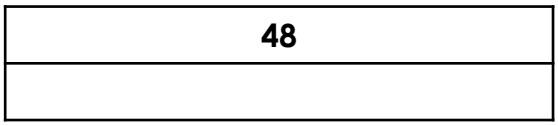
7. Complete each pictorial representation and the corresponding calculation.

A.



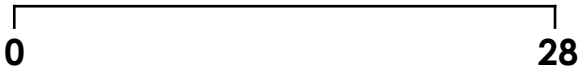
32 ÷ 4 =

B.



48 ÷ 4 =

C.



28 ÷ 4 =

GD

VF
HW/Ext

8. Complete the statements using > < or =.

A. 44 ÷ 4 ◯ 36 ÷ 4

B. 24 ÷ 4 ◯ 20 ÷ 4

C. 12 ÷ 4 ◯ 16 ÷ 4

GD

VF
HW/Ext

9. Wiktoria and Kai are discussing drawing a bar model to calculate 24 ÷ 4.

I will divide my bar model into 6 groups of 4.

Wiktoria

Kai

I will halve my bar model and then halve it again.

Who is correct? Prove it and support your answer by drawing the bar models.

GD

RPS
HW/Ext

Homework
Divide by 4

Developing

1. A and E, B and F, C and D
2. A is < and B is >
3. Josh is correct. The bar model has been divided into 4 groups and there are 5 counters in each group because 20 ÷ 4 = 5.

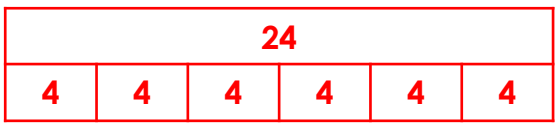
Expected

4 A and F (24 ÷ 4 = 6), B and D (36 ÷ 4 = 9), C and E (20 ÷ 4 = 5)

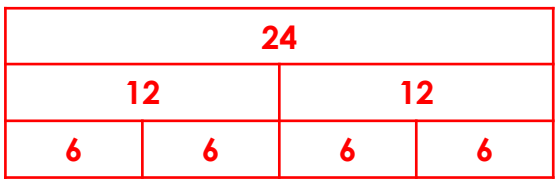
5. A is < and B is >
6. Helena is correct. The bar model has been divided into 4 groups and there are 8 in each because 32 ÷ 4 = 8.

Greater Depth

7. A. Accept any representation that accurately shows 32 ÷ 4 = 8;
B. Accept any representation that accurately shows 48 ÷ 4 = 12;
C. Accept any representation that accurately shows 28 ÷ 4 = 7.
8. A is >, B is > and C is <
9. They are both correct. Wiktoria can divide her bar model into 6 groups with 4 in each group. If Kai halved his bar model and then halved it again, he would get 4 groups with 6 in each group.



Wiktoria



Kai