Homework/Extension
Step 10: Multiply Fractions by Integers

National Curriculum Objectives:

Mathematics Year 6: (6F2) Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
Mathematics Year 6: (6F3) Compare and order fractions, including fractions > 1
Mathematics Year 6: (6F4) Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
Mathematics Year 6: (6F5a) Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, 1/4 x 1/2 = 1/8

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Match the pictorial representation to the calculation and solve. Multiplying mixed numbers by integers with pictorial support.
Expected Match the pictorial representations with the same answers. Multiplying mixed numbers by integers using times table knowledge. Answers allow for improper fractions and mixed numbers with pictorial support.
Greater Depth Draw a pictorial representation of a calculation and use a simplified mixed number to answer. Includes multiplying mixed numbers and improper fractions by an integer.

Questions 2, 5 and 8 (Varied Fluency)
Developing Use comparison symbols to complete the number sentences. Multiplying proper fractions and mixed numbers by integers with pictorial support.
Expected Use comparison symbols to complete number sentences. Multiplying proper fractions and mixed numbers by integers using times table knowledge. Answers allow for improper fractions and mixed numbers with pictorial support.
Greater Depth Use comparison symbols to complete the number sentences, drawing pictorial representations to show working out. Includes multiplying improper fractions and mixed numbers by an integer.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Select the calculation that gives the largest answer when multiplying mixed numbers by integers. Pictorial support given.
Expected Select the calculation that gives the largest answer when multiplying proper fractions and mixed numbers by integers using times table knowledge. Answers allow for improper fractions and mixed numbers.
Greater Depth Select the calculation that gives the largest answer when multiplying mixed numbers and improper fractions by integers.

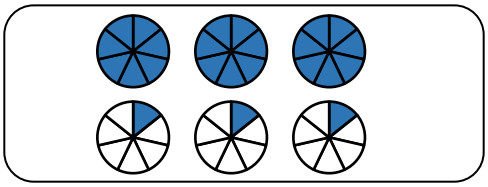
More Year 6 Fractions resources.

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

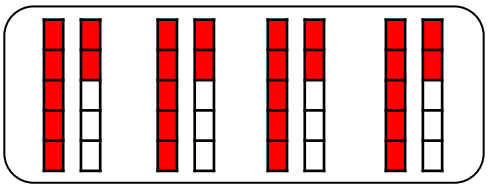
Multiply Fractions by Integers

1. Match the images to the calculation.

A.



B.



1. $4 \times 1\frac{2}{5}$

2. $3 \times 3\frac{1}{7}$

Write the answers to the calculations.

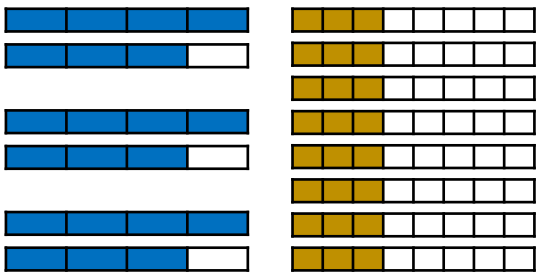
D

VF
HW/Ext

2. Insert <, > or = to complete the number sentences.

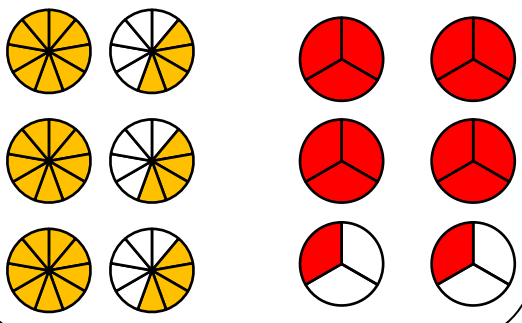
A.

$1\frac{3}{4} \times 2 \quad \square \quad 8 \times \frac{3}{8}$



B.

$1\frac{4}{9} \times 3 \quad \square \quad 2 \times 2\frac{1}{3}$



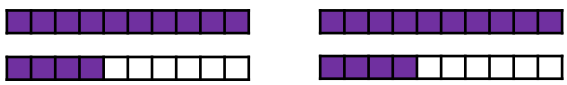
D

VF
HW/Ext

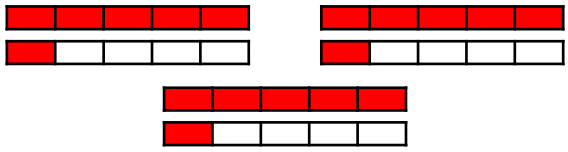
3. Tommy is choosing between 2 packets of biscuits for a class treat.

I need to pick the largest amount so that there is enough for everyone in my class.

A. 2 lots of $1\frac{4}{10}$



B. 3 lots of $1\frac{1}{5}$



Which option should Tommy choose? Convince me.

D

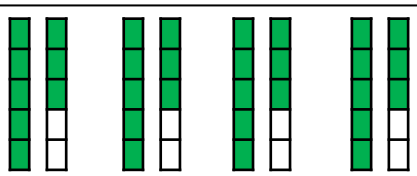
RPS
HW/Ext

Multiply Fractions by Integers

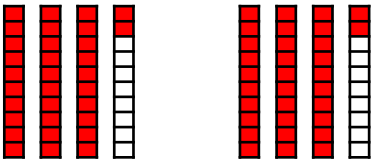
4. Match the images that have the same answer.

A.

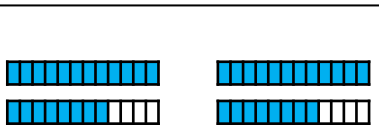
B.



1.



2.



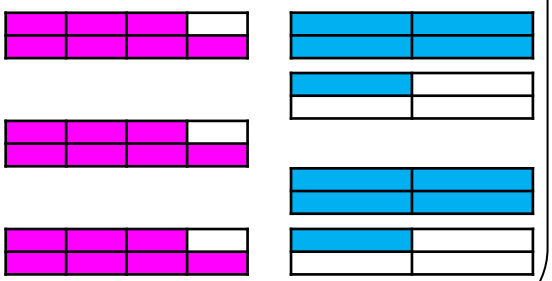
Write the answers to the calculations.

VF
HW/Ext

5. Insert <, > or = to complete the number sentences.

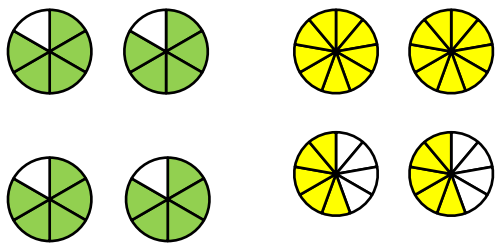
A.

$\frac{7}{8} \times 3 \quad \square \quad 2 \times 1\frac{1}{4}$



B.

$\frac{5}{6} \times 4 \quad \square \quad 2 \times 1\frac{5}{9}$

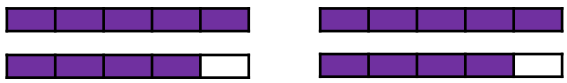


VF
HW/Ext

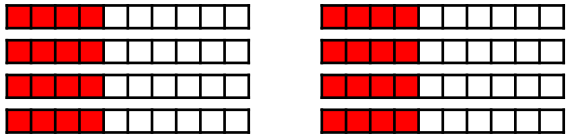
6. Sarah is choosing between 2 packets of fairy cakes for a class treat.

I need to pick the largest amount so that there is enough for everyone in my class.

A. $2 \times 1\frac{4}{5}$



B. $\frac{4}{10} \times 8$



Which option should Sarah choose? Convince me.

RPS
HW/Ext

Multiply Fractions by Integers

7. Draw an image to represent each calculation.

A. $\frac{9}{8} \times 4$

B. $2 \times 2\frac{2}{5}$

C. $\frac{11}{6} \times 2$

Write the answer to each calculation as a simplified mixed number.

GD

VF
HW/Ext

8. Draw images to represent each calculation and use the <, > or = symbol to complete the number sentences.

A. $\frac{9}{6} \times 3 \quad \square \quad 2 \times 2\frac{1}{3}$

B. $\frac{7}{4} \times 2 \quad \square \quad 3 \times 1\frac{2}{8}$

GD

VF
HW/Ext

9. Jasmine is choosing between 2 packets of popcorn for a class treat.

I need to pick the largest amount so that there is enough for everyone in my class.

A. $5 \times 1\frac{6}{10}$

B. $\frac{7}{5} \times 4$

Which option should Jasmine choose?
Convince me.

GD

RPS
HW/Ext

Homework/Extension
Multiply Fractions by Integers

Developing

1. A – 2 (12), B – 1 ($5\frac{3}{5}$)
2. A. >, B. <
3. B is correct because B = $1\frac{1}{5}$ x 3 = $3\frac{3}{5}$ or $3\frac{6}{10}$ while A = $1\frac{4}{10}$ x 2 = $2\frac{8}{10}$.

Expected

4. A – 2 ($3\frac{1}{3}$), B – 1 ($6\frac{2}{5}$)
5. A. >, B. >
6. A is correct because A = $1\frac{4}{5}$ x 2 = $3\frac{6}{10}$ while B = $\frac{4}{10}$ x 8 = $3\frac{2}{10}$

Greater Depth

7. A – $4\frac{1}{2}$, B – $4\frac{4}{5}$, C – $3\frac{2}{3}$
8. A. <, B. <
9. A is correct because A = $1\frac{6}{10}$ x 5 = 8 while B = $\frac{7}{5}$ x 4 = $5\frac{3}{5}$