Lesson 2.1

October 24, 2013

WarmUp

Find the product.

7. $8 \cdot 12 =$ _____

8. $15 \times 12 =$ _____

9. $(13)(20) =$ _____

11. $13 \times 6 =$ _____

12. $(11)(8) =$ _____

13. $19 \cdot 21 =$ _____

15. $0 \cdot 114 =$ _____

16. $26 \times 1 =$ _____

17. $4 \cdot 10 \cdot 8 =$ _____

Lesson 2.1 October 24, 2013

EssentialQuestion

What does it mean to mulply fracons?

Lesson 2.1 October 24, 2013

LessonTarget

To be able to:

- use a visual model for mulplying fracons.

Score	Description
4	I can teach other students how to use a visual model for mulplying fracons.
3	I can use a visual model for mulplying fracons.
2	I recognize a visual model for mulplying fracons.
1	I do not know how to use a visual model for mulplying fracons.

Activity1

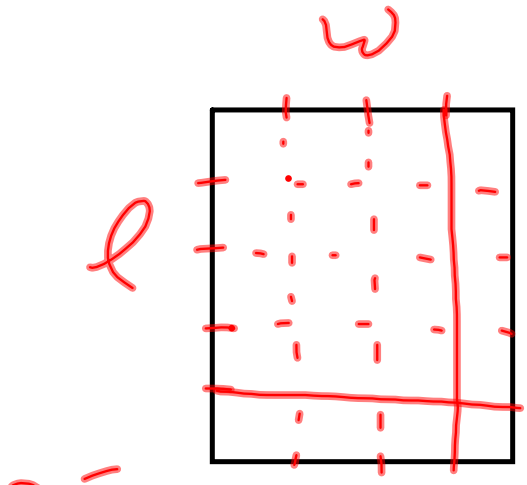
With a partner, complete Acvity 1
on page 31 in your Big Ideas Record
and Pracce Journal.

Activity2

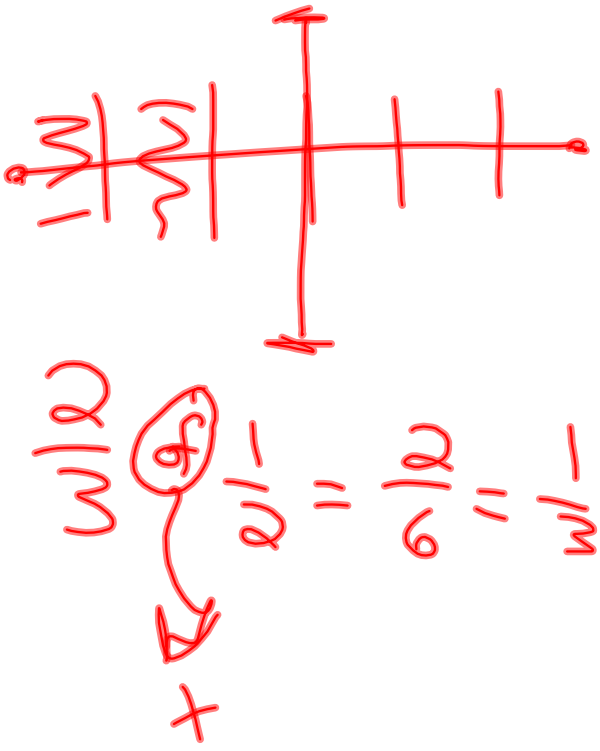
With a partner, complete Acvity 2
on page 32 in your Big Ideas Record
and Pracce Journal.

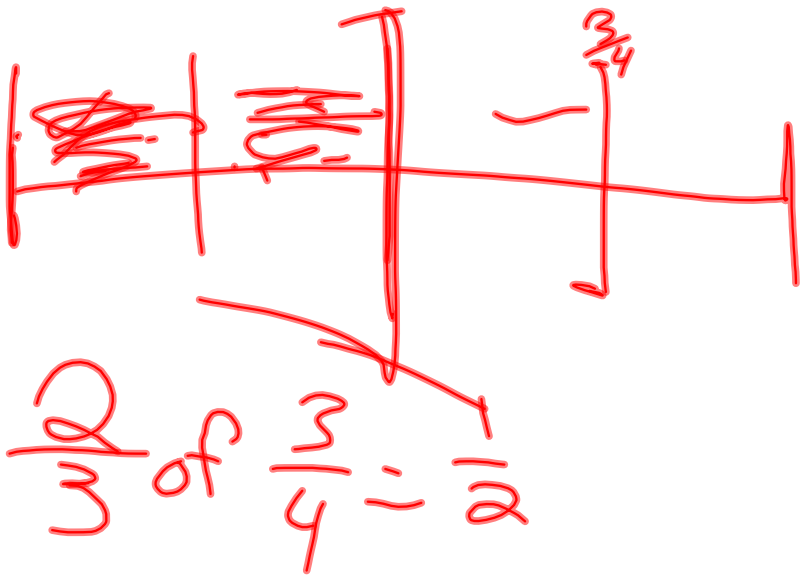
InductiveReasoningTable

With a partner, complete the Inducve Reasoning Table on page 32 in your Big Ideas Record and Pracce Journal.



$$\frac{3}{4} \cdot \frac{4}{5} = \frac{12}{20} = \frac{3}{5}$$




3/4
2/3 of 3/4 = 1/2

$3\frac{1}{2} \times \frac{1}{2} = \frac{12}{6} = 3\frac{1}{1}$

$3\frac{1}{2} \times \frac{3}{4} = \frac{21}{12} = 2\frac{1}{1}$

$$\frac{3}{5} \times \frac{1}{3} = \frac{3}{15}$$

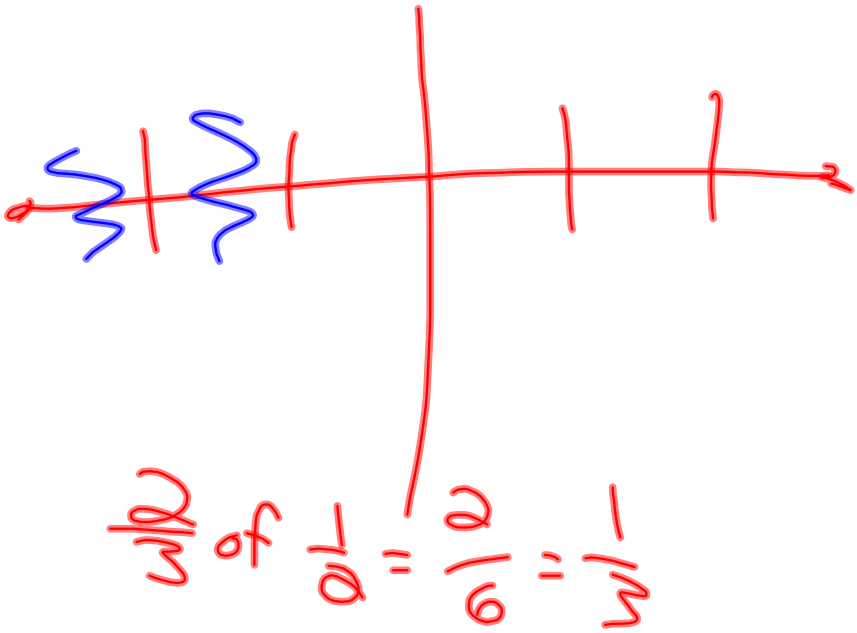
WarmUp

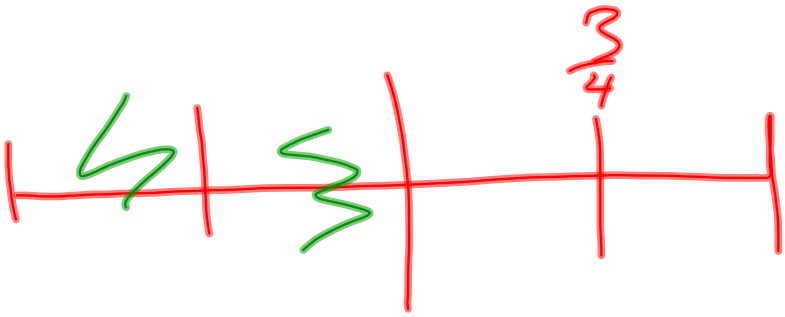
Find the sum or difference.

8. $21 + 7 =$ _____ **9.** $94 + 0 =$ _____ **10.** $104 + 142 =$ _____ **11.** $1147 + 234 =$ _____

12. $19 - 18 =$ _____ **13.** $39 - 29 =$ _____ **14.** $72 - 49 =$ _____ **15.** $1035 - 246 =$ _____

16. $941 - 0 =$ _____ **17.** $12 + 5 + 8 =$ _____ **18.** $31 + 1 + 1 =$ _____ **19.** $123 + 41 + 18 =$ ___


w/2 of
a = 2
b = 1



$\frac{1}{2}$ of $\frac{3}{4} = \frac{1}{2} = \frac{6}{12}$

1 Multiplying Fractions

Find $\frac{1}{5} \times \frac{1}{3}$.

$$\frac{1}{5} \times \frac{1}{3} = \frac{1 \times 1}{5 \times 3}$$

Multiply the numerators.

Multiply the denominators.

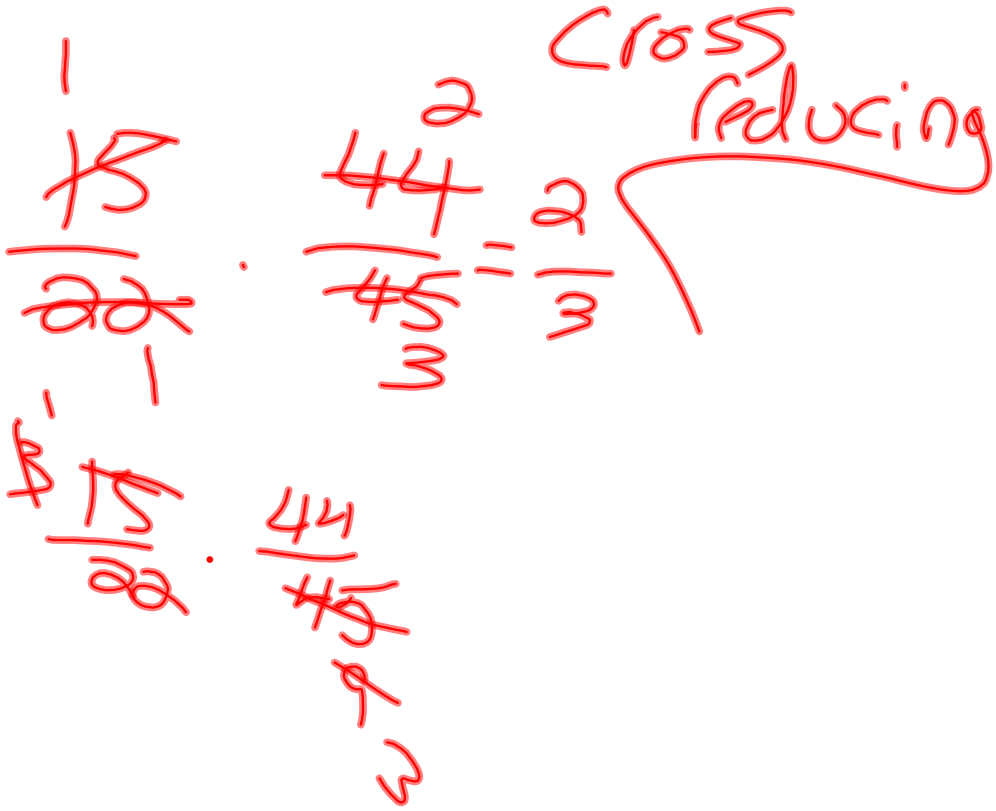
$$= \frac{1}{15}$$

Simplify.

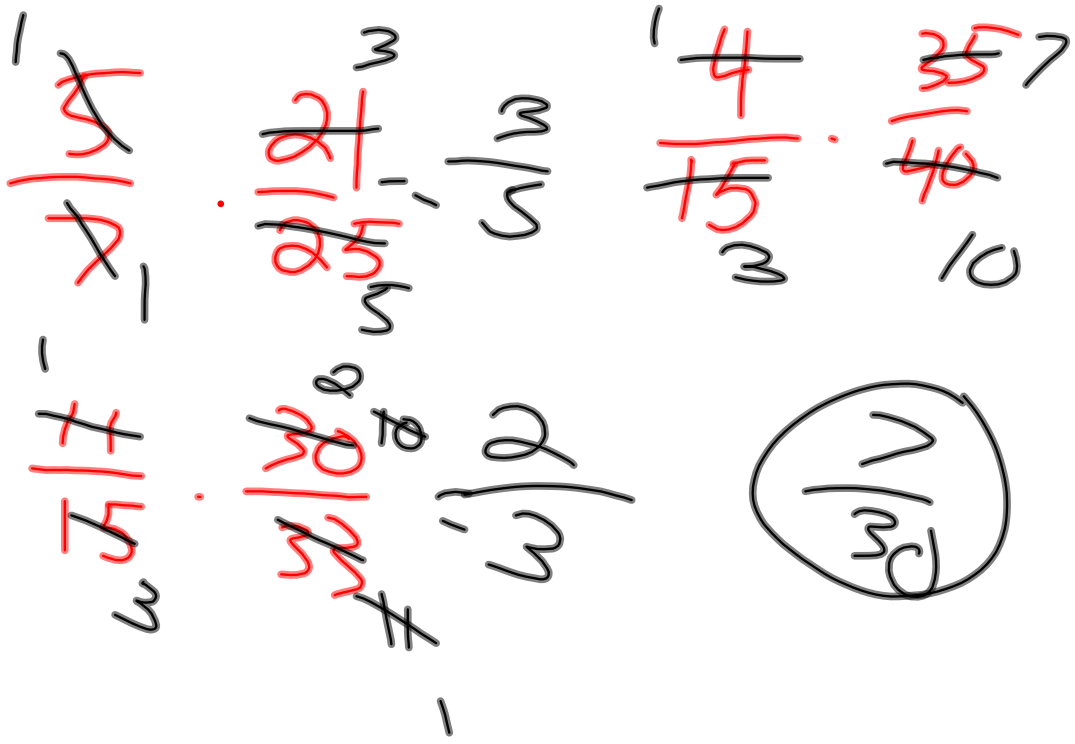
regular reduce

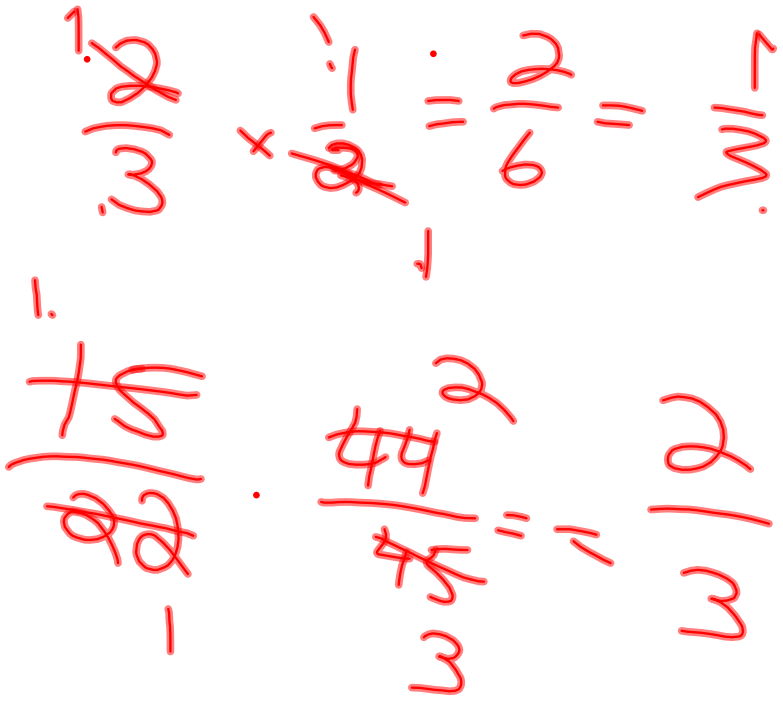
$\frac{2}{6} = \frac{1}{3}$

$\frac{2}{3} \cdot \frac{1}{2} = \frac{1}{3}$


cross
reducing

$$\frac{9}{10} \cdot \frac{7}{8} = \frac{63}{80}$$





2 Multiplying Fractions with Common Factors

Find $\frac{8}{9} \times \frac{3}{4}$.

Estimate $1 \times \frac{3}{4} = \frac{3}{4}$

$$\frac{8}{9} \times \frac{3}{4} = \frac{8 \times 3}{9 \times 4}$$

Multiply the numerators.

Multiply the denominators.

$$= \frac{\overset{2}{\cancel{8}} \times \cancel{3}^{1}}{\cancel{9}_{3} \times \cancel{4}_{1}}$$

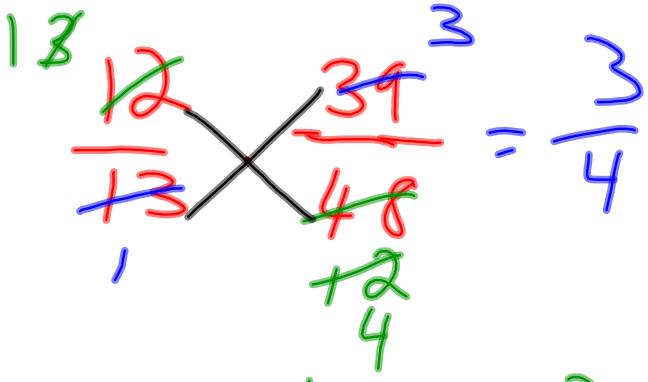
Divide out common factors.

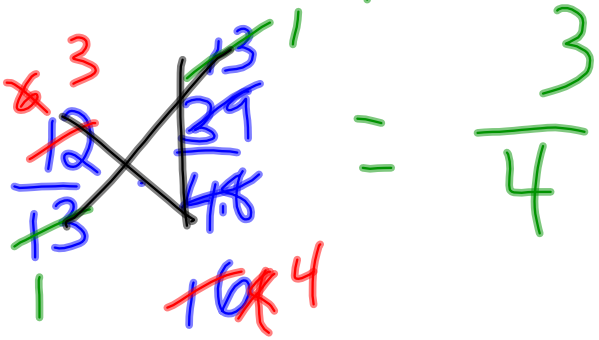
$$= \frac{2}{3}$$

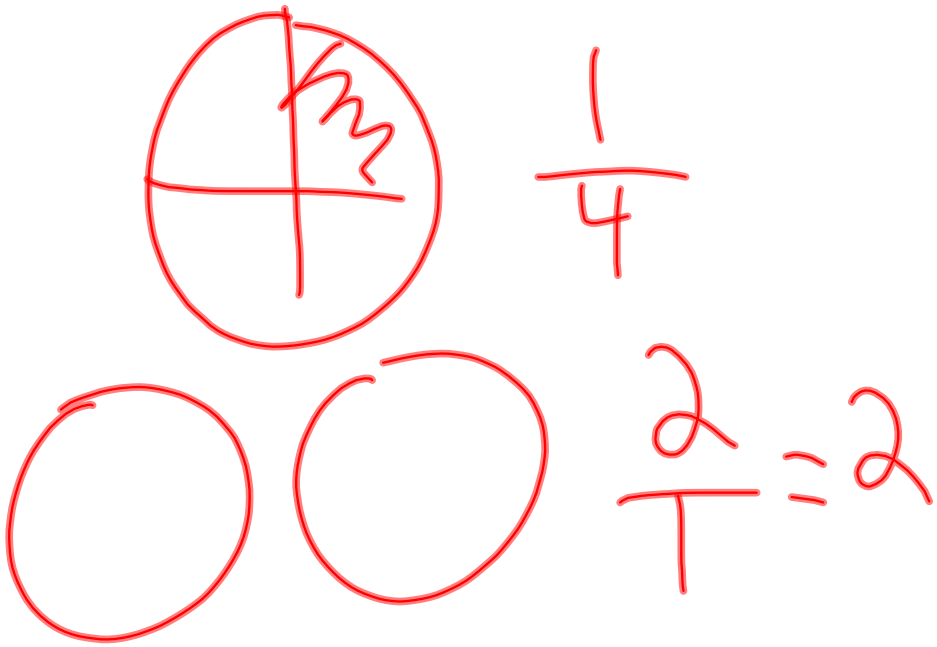
Simplify.

∴ The product is $\frac{2}{3}$.

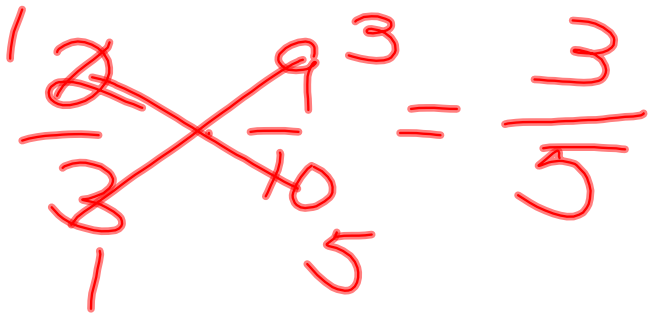
Reasonable? $\frac{2}{3} \approx \frac{3}{4}$ ✓





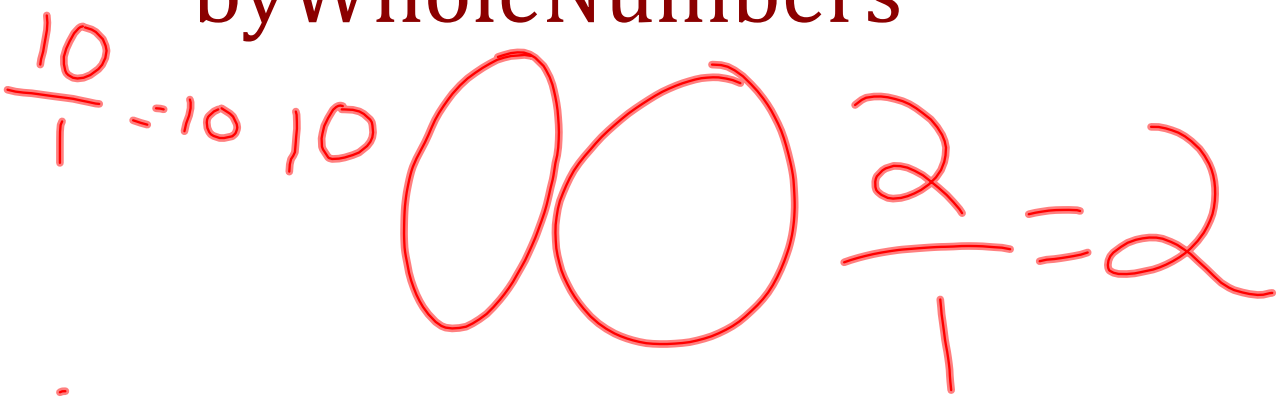

1
4
2
1
= 2

$$\frac{1}{3} \cdot \frac{1}{5} = \frac{1}{15}$$



$$\frac{\cancel{15}^{3}}{\cancel{22}_{11}} \cdot \frac{\cancel{14}^{7}}{\cancel{25}_{5}} \div \frac{21}{55}$$

MultiplyingFractions byWholeNumbers



$$\frac{1}{2} \cdot \frac{10}{1}^{5} = \frac{5}{1} = 5$$

MultiplyingMixedFractions

$5\frac{1}{5} \cdot 3\frac{3}{4}$

$\frac{26}{5} \cdot \frac{15}{4}^{3} = \frac{39}{2} = 19\frac{1}{2}$

Assignment

In your Big Ideas text book, do numbers 10 - 14 on page 59 & numbers 30 - 33, 47 - 49, 54 on page 60 & number 56 - 57 on page 61.

Lesson 2.1 October 24, 2013

EssentialQuestion

What does it mean to mulply fracons?

Homework

Big Ideas Record and
Pracce Journal
Page 34