Do Now: Simplify

- 1.) <u>28</u> 40
- 2.) <u>15</u> 25
- 3.) <u>a⁴</u> a²
- 4.) <u>18m</u>⁵ 24m⁴

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Do Now: Simplify

1.) $\frac{36}{80} \stackrel{?4}{=} \frac{9}{20}$ 2.) $\frac{150}{255} \stackrel{?5}{=} = \frac{30}{51} \stackrel{?3}{=} = 17$ 3.) $\frac{h^6}{h^8} = \frac{1}{h^3}$ 4.) $\frac{12f^{15}}{42f^6} = \frac{6f^{15}}{21f^6} = \frac{2}{7} \stackrel{?3}{=} \frac{5}{6} = \frac{2}{7}$

Oct 8-7:12 AM

5.4 Multiplying Fractions

7.NS.1 7.NS.2 7.EE

- SWBAT multiply fractions and mixed numbers.
- SWBAT understand numbers; understand ways of representing numbers; compute fluently.
- · Calculators: No

Multiplying Fractions

Words: The product of two or more fractions is equal to the product of the numerators over the product of the denominators.

Numbers: $\frac{3}{5} * \frac{4}{7} = \frac{3 * 4}{5 * 7} = \frac{12}{35}$

Algebra: $\underline{a} * \underline{c} = \underline{a} * \underline{c}$ b d b * d

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Find the product.

1.)
$$7/10 * (-4/21)$$

$$\frac{7}{10} \cdot \frac{-4}{21} = \frac{7(-4)}{10(21)} = \frac{-28}{210^{22}}$$

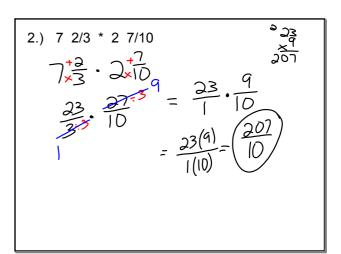
$$= \frac{-14^{27}}{105^{27}} = \frac{-2}{15}$$

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

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

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

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3.)
$$3 + (5/6) * (-3/20)$$

$$3 + \frac{5}{6} \left(\frac{-3}{30} \right)$$

$$3 + \frac{5}{6} \left(\frac{-3}{30} \right)$$

$$2 + \frac{1}{2} \left(\frac{3}{20} \right)$$

$$3 + \frac{1}{2} \left(\frac{3}{20} \right)$$

$$4 + \frac{1}{2} \left(\frac{3}{20} \right)$$

$$3 + \frac{1}{2} \left(\frac{3}{20} \right)$$

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$$4 + \frac{1}{2} \left(\frac{3}{20} \right)$$

$$4 + \frac{1}{2} \left($$

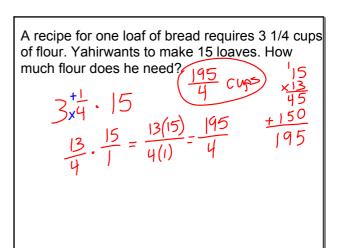
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$$\frac{-123}{-5}$$
 (division) = $\frac{123}{5}$
Neg

Oct 8-8:25 AM

1.)
$$-3/5 * 11/12 = \frac{3}{5} \cdot \frac{11}{12}$$
2.) $-2 \frac{3}{4} * 3 \frac{1}{5} = \frac{3}{5} \cdot \frac{11}{12}$
3.) $-3 * (5/8) + (13/24) = -3(\frac{5}{8}) + \frac{13}{24}$

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Sep 30-2:37 PM

Simplify the expression

a.)
$$(m/3) * (-12/5)$$
 $\frac{m}{35} = \frac{m}{1} \cdot \frac{-4}{5} = \frac{-4m}{5}$

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b.)
$$(n^{2}/10) * (5n^{3}/9)$$

$$\frac{n^{3}}{10} \cdot \frac{5n^{3}}{9} = \frac{n^{3}(5n^{3})}{10(9)} = \frac{5n^{3}}{18}$$

$$\frac{n^{3}}{18} \cdot \frac{8n^{3}}{9} = \frac{n^{3}}{2} \cdot \frac{n^{3}}{9}$$

$$= \frac{n^{3}(n^{3})}{3(9)} = \frac{n^{5}}{18}$$
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$$\frac{1j'k'}{12} \cdot \frac{5j'k^7}{9} = \frac{5j^2k^8}{108}$$

$$\frac{c}{\sqrt{377}} \cdot \frac{14713}{15} \cdot \frac{c}{15} \cdot \frac{2}{15} = \frac{2c}{15}$$

- f.) (-2x3/9) * (-3x/4)
- g.) (r6/3) * (r2y3/11)

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Exit Pass 5.4

Describe and correct the error in simplifying the expression (ê/7) * (4c4/5).

$$(c^{2}/7) * (4c^{4}/5) = (c^{2}/4c^{4}) / (7*5)$$

$$= 4c^{3}/35$$



"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the worksheet.



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Reflection of Today's Lesson

5.4 Multiplying Fractions

7.NS.1 7.NS.2 7.EE

- SWBAT multiply fractions.
- SWBAT identify the numerator and the denominator, understanding the importance of each.

Homework

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5.5 Dividing Fractions

7.NS.1 7.NS.2 7.EE

- SWBAT divide fractions.
- SWBAT identify the numerator and the denominator, understanding the importance of each.

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• Calculators: No

reciprocals- two nonzero numbers whose product is one

Number	Reciprocal	Reason
5		
-2/7		
0.1		

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Dividing Fractions

Words: To divide by any nonzero number, multiply by its reciprocal

Numbers: $\frac{2}{9} \div \frac{3}{7} =$

Algebra: $\frac{\underline{a}}{b} \div \frac{\underline{c}}{d} = \frac{\underline{a}}{b} * \frac{\underline{d}}{c} = \frac{\underline{a}*\underline{d}}{b*c}$

where b≠0,c≠0 and d≠0

Find the quotient.

1.) $-2/5 \div 4/7$

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2.) 4
$$1/6 \div (-1 \ 2/3)$$

3.)
$$27 \div (-3/11)$$

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1.)
$$-2/3 \div -5/6$$

2.) -6
$$2/3 \div 15/9$$

3.)
$$(-16/21) \div -18$$

Kyle mixes 2 gallons (32 cups) of fruit punch for a cookout. If each of the tumblers he plans to serve the punch holds 2 1/3 cups, how many tumblers can he fill?

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Exit Pass 5.5

Explain why 0.25 and 4 are reciprocals.



"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the worksheet.



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Reflection of Today's Lesson

5.5 Dividing Fractions

7.NS.1 7.NS.2 7.EE

- SWBAT divide fractions.
- SWBAT identify the numerator and the denominator, understanding the importance of each.

Homework

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Worksheet 5.5



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