شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية

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موقع المناهج الإماراتية

حل تدريبات الدرس الثاني من الوحدة الأولى

التواصل الاجتماعي بحسب الصف السادس

روابط مواد الصف السادس على تلغرام

التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف السادس والمادة رياضيات في الفصل الأول

1	أوراق عمل مراجعة الوحدة الأولى النسب والمعادلات
2	ملزمة الأسبوع الأول الوحدة الأولى النسب والمعادلات
3	أوراق عمل الوحدة الأولى النسب والمعادلات الأسبوع الأول
4	كتاب الطالب Reveal ريفيل المجلد الأول
5	حل أسئلة امتحان نهائي منهج ريفيل

Lesson 1-2

Tables of Equivalent Ratios

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

$\frac{2}{3} = \frac{4}{6} = \frac{6}{9}$

Learn Equivalent Ratios and Ratio T ables

The table shows the ingredients needed to make the dough for one pizza. You used this information in the Explore activity to find the number of cups of each ingredient needed to make 1, 2, and 3 pizzas by maintaining the ratio of 2 : 3.

Ingredient	Number of Cups
• Greek Yogurt	2
• Self-Rising Flour	3

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

1 pizza: $\frac{2}{3}$

2 pizzas: $\frac{2}{3} \times \frac{2}{2} = \frac{4}{6}$

3 pizzas: $\frac{2}{3} \times \frac{3}{3} = \frac{6}{9}$

Example 1 Scale Forward to Find Equivalent Ratios

To make yellow icing, Amida mixes 6 drops of yellow food coloring with 2 cups of white icing.

How many drops of yellow food coloring should Amida mix with 8 cups of white icing to get the same shade of yellow?

How many drops of yellow

numerator

$$\frac{\text{How many}(\ )}{\text{denomonater}} = \frac{6}{8}$$

$$\frac{6}{2} = \frac{???}{8} \Rightarrow 2 \times \boxed{4} = 8 \quad 6 \times \boxed{4} = 24$$

24 drops of yellow.

Check

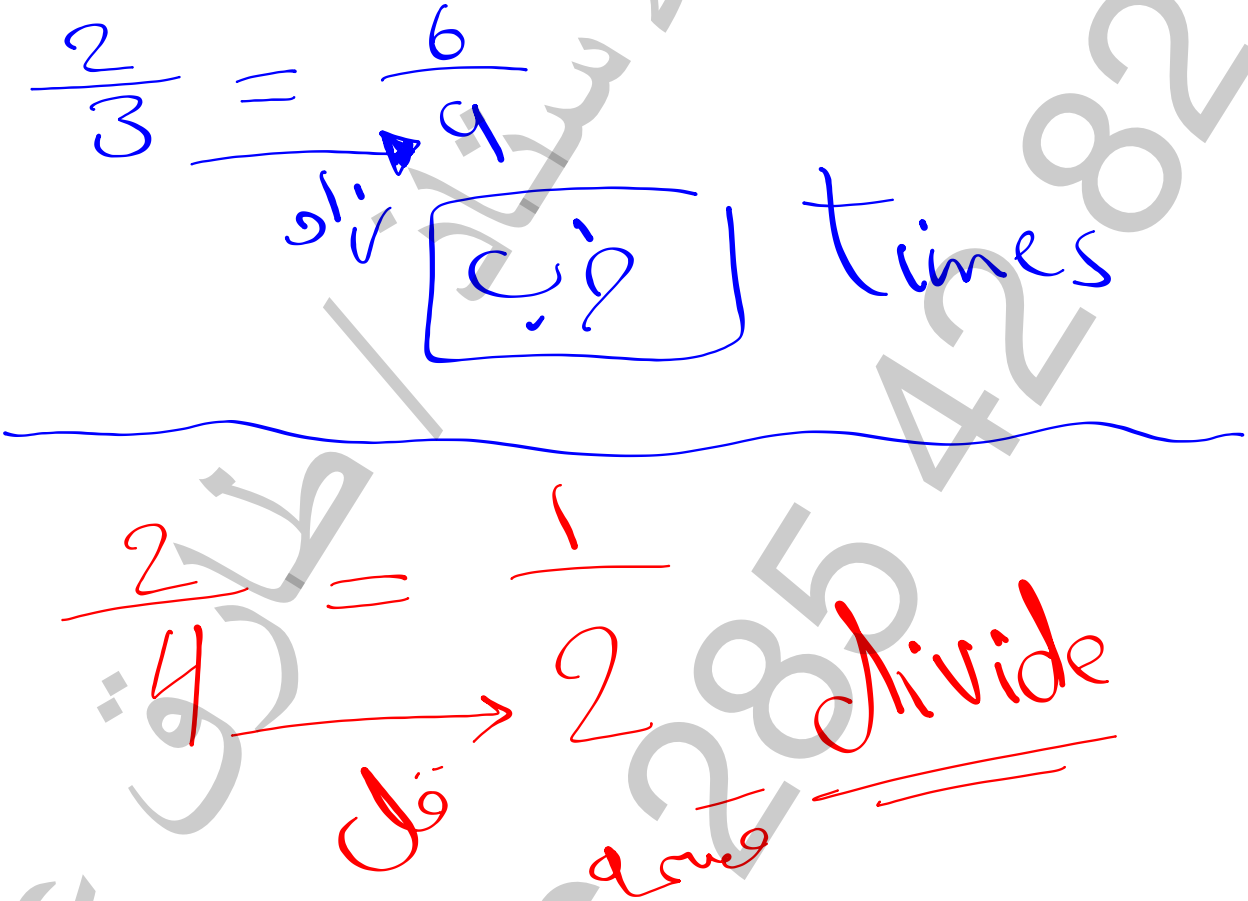
In a batch of trail mix, there are 3 tablespoons of peanuts for every 2 tablespoons of sunflower seeds. How many tablespoons of sunflowers seeds are needed if you have 18 tablespoons of peanuts?

sunflowers / peanuts

$$\frac{2}{3} = \frac{\text{sunflowers}}{18}$$

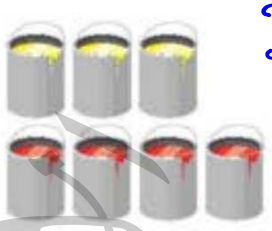
$3 \times \boxed{6} = 18$

$2 \times \boxed{6} = \boxed{12} \Rightarrow$ sunflowers



Example 2 Scale Backward to Find Equivalent Ratios

Akeno mixes three sample containers of yellow paint with four sample containers of red paint to create his favorite shade of orange paint. His little sister Aiko wants to create the same shade of orange paint, but she only has two sample containers of red paint.



What should Aiko do to create the same shade of orange paint?

yellow / red → 3/4 = yellow / 2

4 ÷ 2 = 2

3 ÷ 2 = 1.5 yellow

Check

To make three loaves of banana bread, you need 9 bananas. How many bananas are needed to make one loaf of banana bread?

bananas / loaves → 9/3 = banana / 1

÷3

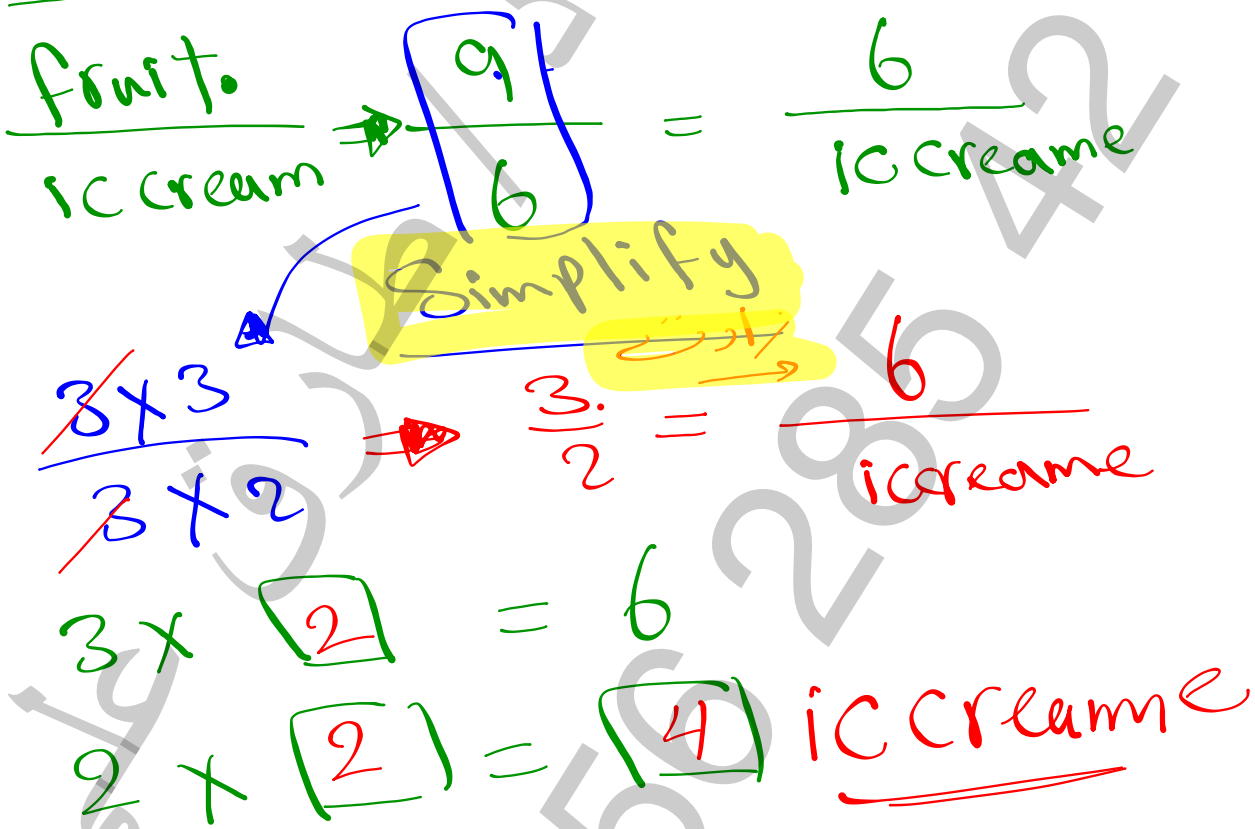
3 ÷ 3 = 1

9 ÷ 3 = 3 bananas

Example 3 Scale in Both Directions

Natasha made raspberry punch for a party by mixing 9 fluid ounces of fruit punch, 3 liters of soda, and 6 scoops of raspberry ice cream. Halfway through the party, the punch bowl was empty.

If Natasha only has 6 fluid ounces of fruit punch left, how much ice cream does she need to make another batch of punch?



Check

Refer to Example 3. How many liters of soda should Natasha mix with the 6 fluid ounces of fruit punch?

Natasha made raspberry punch for a party by mixing 9 fluid ounces of fruit punch, 3 liters of soda, and 6 scoops of raspberry ice cream. Halfway through the party, the punch bowl was empty.

$\frac{\text{Fruit}}{\text{Soda}} \Rightarrow \frac{9}{3} = \frac{6}{\text{Soda}}$

$\frac{3 \times 3}{3 \times 1} \Rightarrow$ بالنسبة $\frac{3}{1} = \frac{6}{\text{Soda}}$

$3 \times 2 = 6$

$1 \times 2 = 2$ Soda

$\frac{3}{1} \quad \frac{6}{\text{Soda}}$ بالنسبة لـ

$\frac{3\,\text{Soda}}{3} = \frac{6}{3}$

Soda = 2

$\frac{3}{1} = \frac{6}{S} \Rightarrow S = \frac{6}{3}$

$= 2$

Example 4 Use a Double Number Line to Find Equivalent Ratios

The ingredients needed to make 24 biscuits are shown in the table.

If Portia wants to only make 18 biscuits, how many cups of flour does she need?

Homemade Biscuits
4 c flour → 24 biscuits
8 tsp baking powder
2 tbsp sugar
1 tsp salt
1 c shortening
2 large eggs
2 c milk

flour → biscuits.

$\frac{4}{24} = \frac{\text{flour}}{18}$

$\text{flour} = \frac{4 \times 18}{24} = \frac{4 \times 3 \times 6}{4 \times 6}$

$\text{flour} = 3$

book يعني

$\frac{4}{24} = \frac{\text{flour}}{18}$ simplify

$\frac{4(x1)}{4x6} \Rightarrow \frac{1}{6} = \frac{\text{flour}}{18}$

$6 \times [3] = 18$

$1 \times [3] = 3$ flour

Check

Refer to Example 4. If Portia only wanted to make 6 biscuits, how many teaspoons of baking powder will she need?

The ingredients needed to make 24 biscuits are shown in the table.

Homemade Biscuits
4 c flour
8 tsp baking powder
2 tbsp sugar
1 tsp salt
1 c shortening
2 large eggs
2 c milk

baking powder / biscuits $\Rightarrow \frac{8}{24} = \frac{bP}{6}$

$bP = \frac{8 \times 6}{24} = \frac{4 \times 2 \times 6}{4 \times 6} = [2]$

baking powder = 2

$\frac{8}{24} = \frac{bp}{6}$

simplify $\frac{8 \times 1}{8 \times 3} = \frac{1}{3}$

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

$3 \times 2 = 6$

$1 \times 2 = 2$

Practice

Use any strategy to solve each problem.

1. Jayden's snow cone machine makes 3 snow cones from 0.5 pound of ice. How many snow cones can be made with 5 pounds of ice? (Example 1)

$\frac{\text{pound}}{\text{snow}}$

$\frac{0.5}{3} = \frac{5}{\text{snow}}$

$\text{snow} = \frac{3 \times 5}{\frac{1}{2}} = \frac{15}{\frac{1}{2}} = 15 \div \frac{1}{2}$

$= 15 \times \frac{2}{1}$

$= \frac{30}{1} = 30$

2. Nyoko is having a pizza party. Two large pizzas serve 9 people. How many large pizzas should she order to serve 36 guests at the party? (Example 1)

People / Serve $\Rightarrow \frac{9}{2} = \frac{36}{\text{Serve}}$

$9 \times \boxed{4} = 36$

$2 \times \boxed{4} = 8$ Pizza

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3. The world record for the most number of speed skips in 60 seconds is 332 skips. If the record holder skipped at a constant ratio of seconds to skips, how many skips did she make in 15 seconds? (Example 2)

Skips / Second $\Rightarrow \frac{332}{60} = \frac{\text{Skips}}{15}$

$60 \div \boxed{4} = 15$

$332 \div \boxed{4} = 83$

$\frac{300}{4} + \frac{32}{4}$

$75 + 8 = \boxed{83}$

2 x 15
3 x 15
4 x 15

$4\overline{)332}$

4. A recipe for homemade clay calls for 6 cups of water for every 12 cups of flour. How many cups of water are needed when 4 cups of flour are used? (Example 2)

water / flour ⇒ 6/12 = water/4 Simplify

6x1 / 6x2 ⇒ 1/2 = water/4 بالتبادل

2 x [2] = 4

1 x [2] = [2] cups of water

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5. Adrian decorated 16 cupcakes in 28 minutes. If he continues at this pace, how many minutes will it take him to decorate 56 cupcakes? (Example 3)

28/16 = minutes/56

Simplify ⇒ 7x4 / 4x4 = [7/4]

7/4 = minutes/56 بالتبادل

4 x [14] = 56

7 x [14] = 98

98 minutes ✓

6. A comic book store is having a sale. You can buy 20 comic books for $35. What is the cost of 8 comic books during the sale? (Example 3)

Comic books / $ ⇒ $\frac{20}{35} = \frac{8}{\$}$

Simplify

$\frac{5 \times 4}{5 \times 7} \Rightarrow \frac{4}{7} = \frac{8}{\$}$ بالتبادل

$4 \times \boxed{2} = 8$

$7 \times \boxed{2} = 14$ $ Cost

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7. A certain store is selling packages of 10 pencils and 4 pens for back to school. The store manager wants to make a larger package in the same ratio. If the large package has 10 pens, how many pencils are in the large package? (Example 4)

Pencils / Pens

$\frac{10}{4} = \frac{\text{Pencils}}{10} \Rightarrow \frac{2 \times 5}{2 \times 2} = \boxed{\frac{5}{2}}$

simplify

$\frac{5}{2} = \frac{\text{Pencils}}{10}$ بالتبادل

$2 \times \boxed{5} = 10$

$5 \times \boxed{5} = 25$

Pencils