Warm Up Grade 6

Use RECTANGLES and model

1) One-third of the grade 6 students tried out for a talent show. One-quarter of these students were successful. What fraction of the grade 6 students are performing at the show? $\frac{1}{3} \times \frac{1}{4} = \frac{1}{12}$

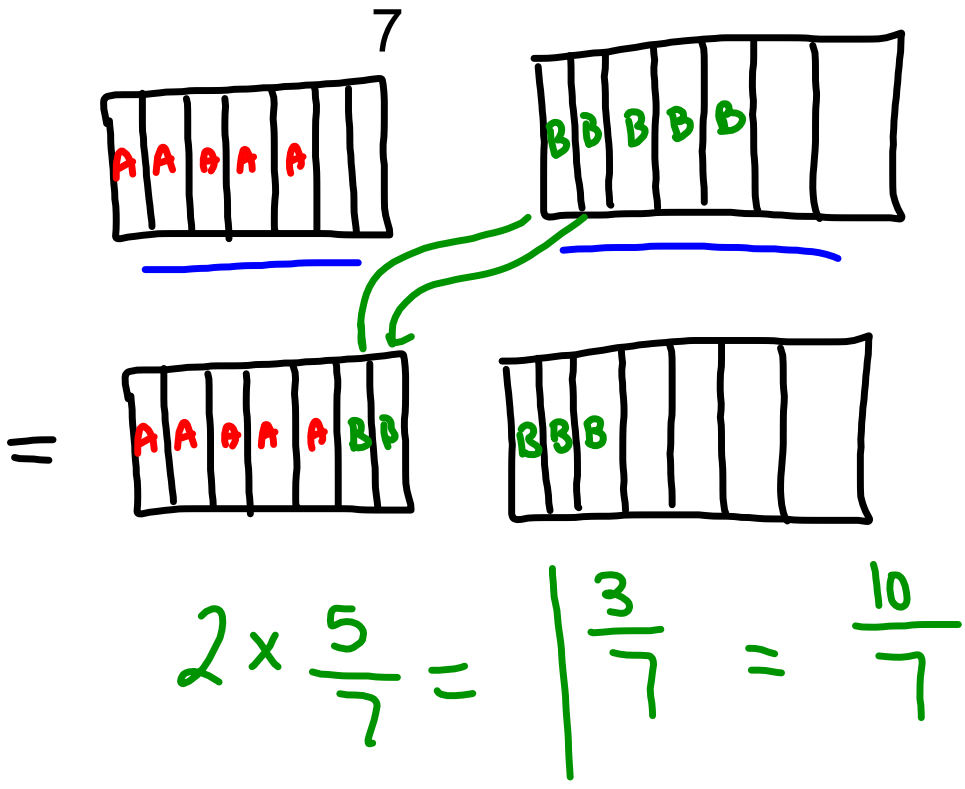
2) a) Write the a rate for $12 for 4 bars of soap

$12/4 bars ÷4 → $3/1 bar ÷4

b) Express part 'a' as a unit rate

2nd term is 1

3) Model $2 \times \frac{5}{7}$

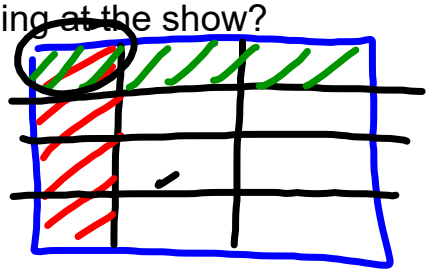


$2 \times \frac{5}{7} = 1\frac{3}{7} = \frac{10}{7}$

Warm Up Grade 6

1) Use RECTANGLES and model

One-third of the grade 6 students tried out for a talent show. One-quarter of these students were successful. What fraction of the grade 6 students are performing at the show?



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

2) a) Write the a rate for $12 for 4 bars of soap

b) Express part 'a' as a unit rate

$\$12 / 4 \text{ bars}$

$\div 4 \quad \div 4$

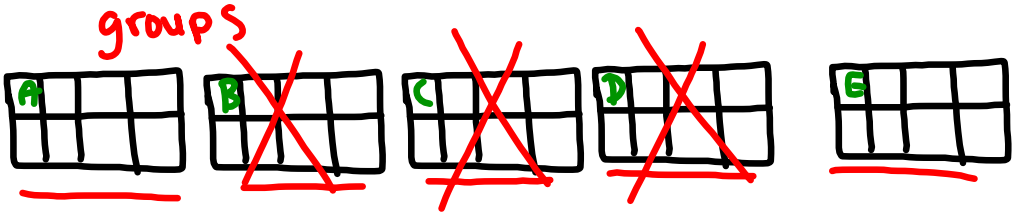
$\$3 / 1 \text{ bar}$

WS 108 Day 2

Solutions #11a, 14a

11a) $5 \times \frac{1}{8}$

groups



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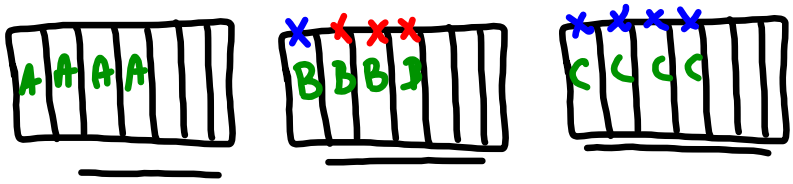
$5 \times \frac{1}{8} = \frac{5}{8}$

14a) $3 \times \frac{4}{7}$



Redraw the shuffling

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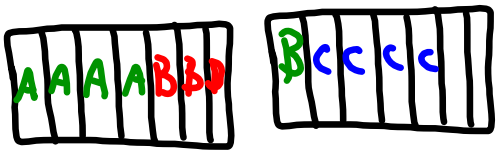


$3 \times \frac{4}{7} = \frac{5}{7}$

$= \frac{12}{7}$

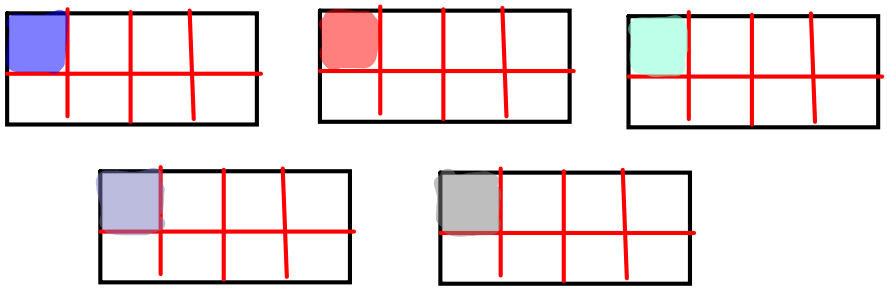
WS 108 Day 2

Solutions

11. Use fraction circles to find each product. Sketch the fraction circles. Write a multiplication equation each time.

a) $5 \times \frac{1}{8}$ b) $\frac{2}{5} \times 3$ c) $4 \times \frac{5}{12}$

11. a) $5 \times \frac{1}{8}$



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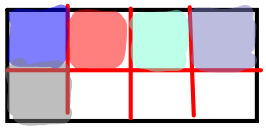
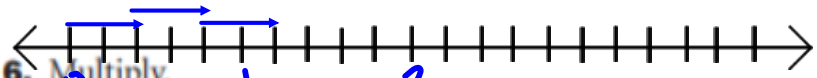


$= \frac{5}{8}$

b) $\frac{2}{5} \times 3$

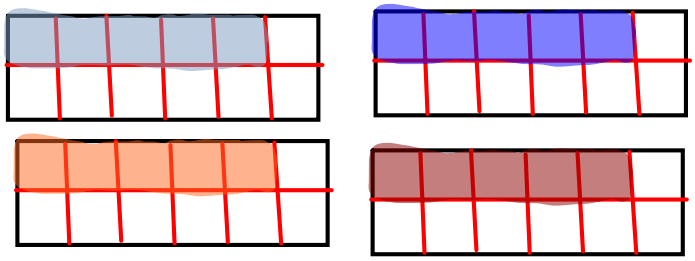


16. Multiply.

a) $3 \times \frac{4}{5}$ b) $5 \times \frac{7}{9}$ c) $\frac{5}{3} \times 6$ d) $\frac{1}{2} \times 5$ e) $12 \times \frac{7}{8}$ f) $\frac{2}{4} \times 9$

$= \frac{6}{5}$

c) $4 \times \frac{5}{12}$



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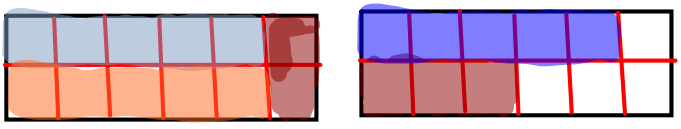
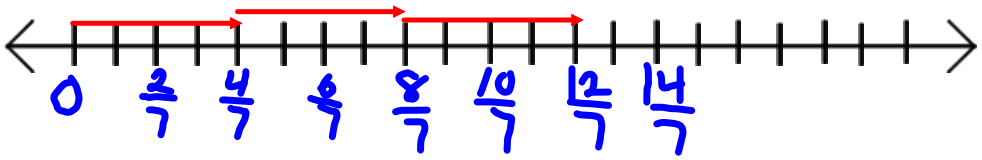


$= \frac{20}{12}$ or $1\frac{8}{12}$

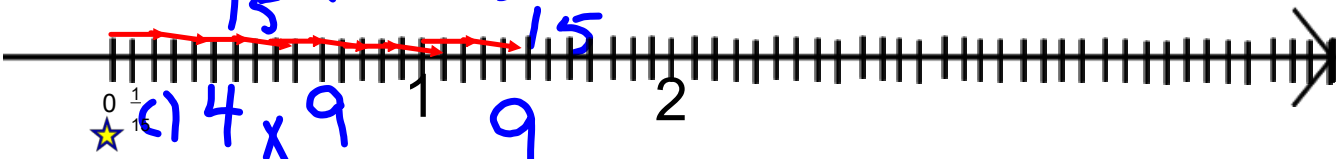
14. Multiply. Draw a picture or number line to show each product.

a) $3 \times \frac{4}{7}$ b) $\frac{2}{15} \times 10$ c) $4 \times \frac{9}{4}$ d) $\frac{2}{5} \times 7$

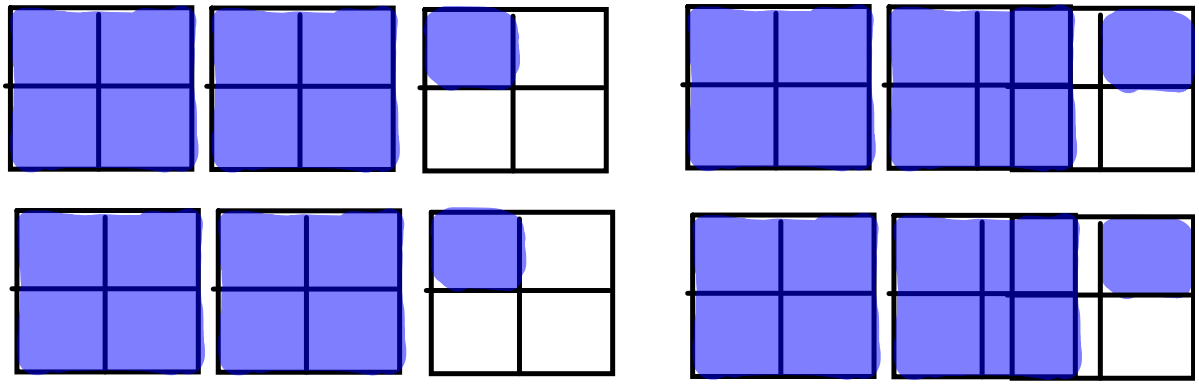
a) $3 \times \frac{4}{7} = \frac{12}{7}$



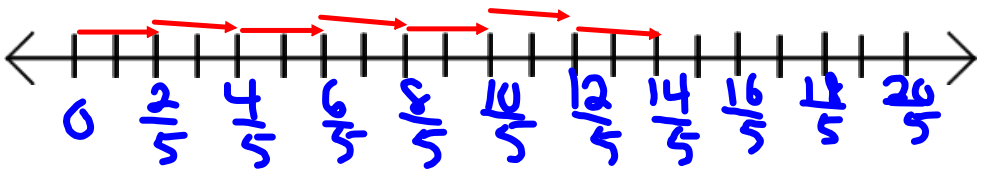
b) $\frac{2}{15} \times 10 = \frac{20}{15}$



c) $4 \times \frac{9}{4} = 9$

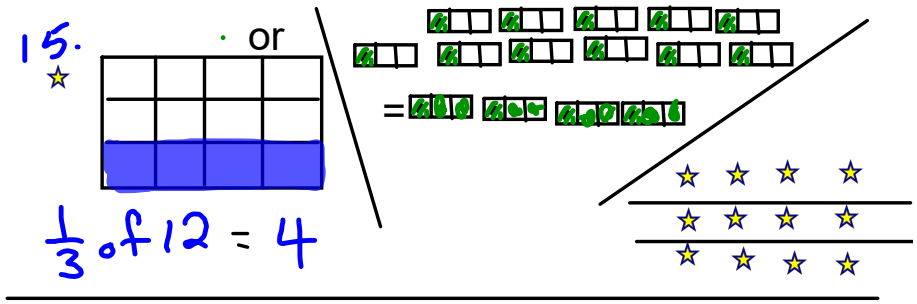


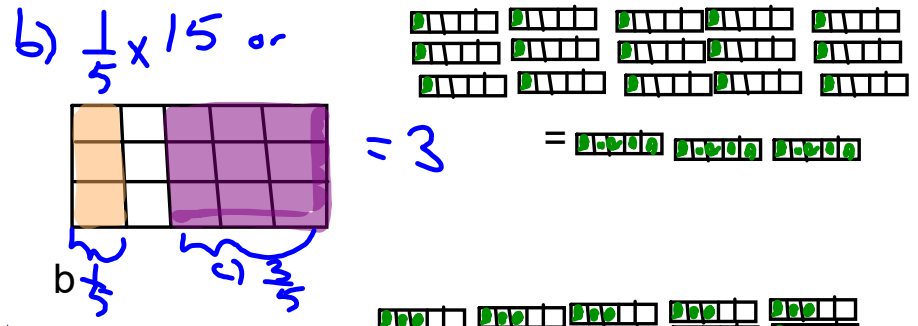
d) $\frac{2}{5} \times 7 = \frac{14}{5}$



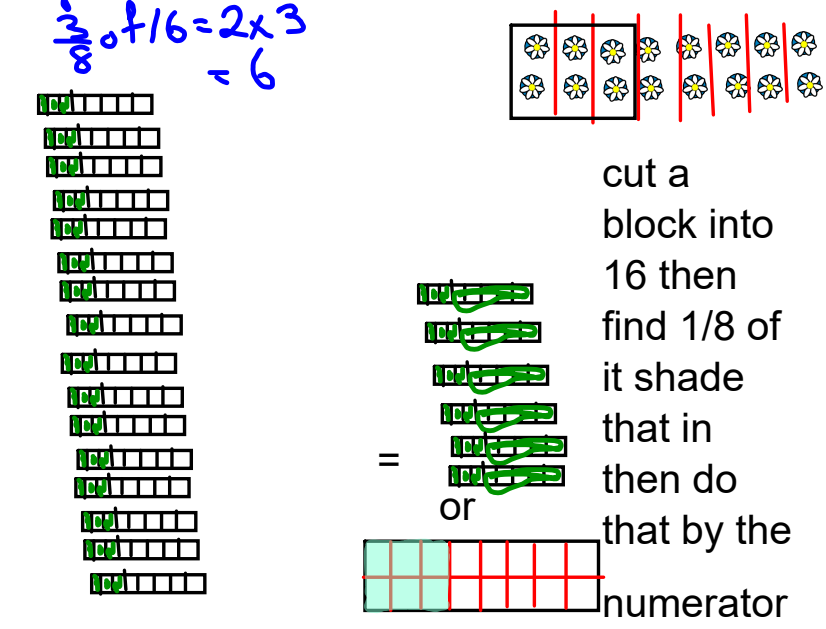
15. Draw and shade rectangles to find each product.

a) $\frac{1}{3} \times 12$ b) $\frac{1}{5} \times 15$ c) $\frac{3}{5} \times 15$ d) $\frac{3}{8} \times 16$





or



16. Multiply.

a) $3 \times \frac{4}{5}$ b) $5 \times \frac{7}{9}$ c) $\frac{5}{3} \times 6$ d) $\frac{1}{2} \times 5$ e) $12 \times \frac{7}{8}$ f) $\frac{2}{4} \times 9$

16 a) $3 \times \frac{4}{5} = \frac{12}{5}$ b) $5 \times \frac{7}{9} = \frac{35}{9}$

c) $\frac{5}{3} \times 6 = \frac{30}{3} = 10$ d) $\frac{1}{2} \times 5 = \frac{5}{2}$

e) $12 \times \frac{7}{8} = \frac{84}{8}$ f) $\frac{2}{4} \times 9 = \frac{18}{4}$

17. It takes $\frac{2}{3}$ h to pick all the apples on one tree at Springwater Farms. There are 24 trees. How long will it take to pick all the apples? Show your work.

17) $\frac{2}{3}$ x 24

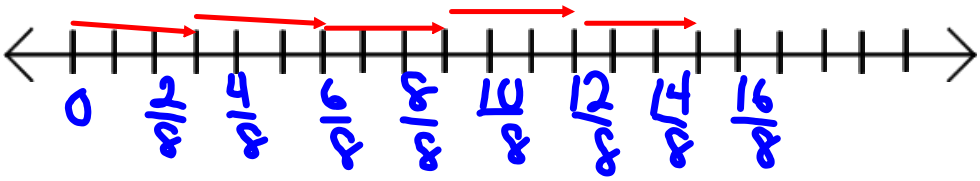
1/3 of 24 is 8

so

2/3 of 24 is 2x8 = 16

19. $5 \times \frac{3}{8}$

I want to give $\frac{3}{8}$ of a choc. bar to 5 friends. How many bars do I need?



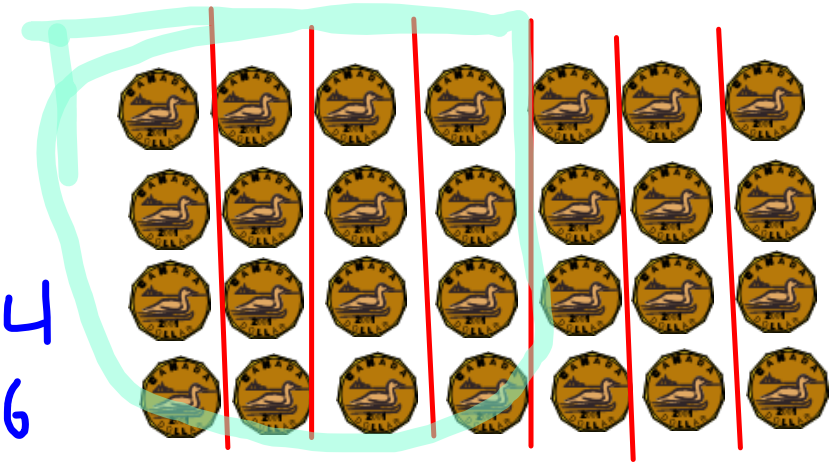
$\frac{15}{8}$ or $1\frac{7}{8}$ bars.

20. $\frac{4}{7}$ of 28

$\frac{1}{7}$ of $28 = 4$

$\frac{4}{7}$ of $28 = 4 \times 4$

$= 16$



WS 113 #5, 6

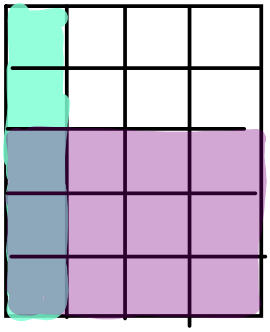
Homework Solutions

5. Draw a rectangle to multiply $\frac{3}{5} \times \frac{1}{4}$. What is the product of $\frac{3}{5} \times \frac{1}{4}$?

pg 113

5. $\frac{3}{5} \times \frac{1}{4}$

$= \frac{3}{20}$

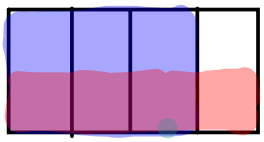


6) Shade the rectangle to find each product.

a) $\frac{1}{2} \times \frac{3}{4}$ b) $\frac{3}{4} \times \frac{2}{3}$ c) $\frac{2}{5} \times \frac{1}{2}$ d) $\frac{5}{6} \times \frac{1}{2}$ e) $\frac{3}{5} \times \frac{7}{8}$ f) $\frac{4}{5} \times \frac{3}{4}$

6 a) $\frac{1}{2} \times \frac{3}{4}$

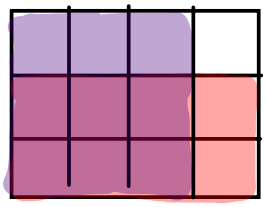
$= \frac{3}{8}$



b) $\frac{3}{4} \times \frac{2}{3}$

$= \frac{6}{12}$ REDUCE ÷6 ÷6

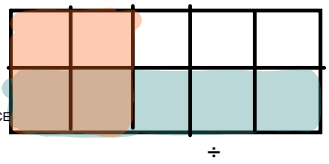
$= \frac{1}{2}$



c) $\frac{2}{5} \times \frac{1}{2}$

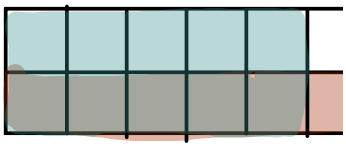
$= \frac{2}{10}$ REDUCE ÷2 ÷2

$= \frac{1}{5}$



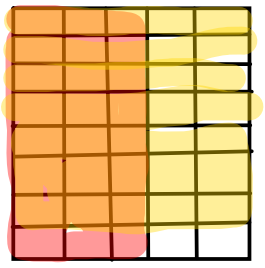
d) $\frac{5}{6} \times \frac{1}{2}$

$= \frac{5}{12}$



e) $\frac{3}{5} \times \frac{7}{8}$

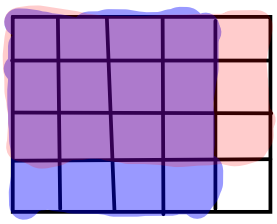
$= \frac{21}{40}$



f) $\frac{4}{5} \times \frac{3}{4}$

$= \frac{12}{20}$ REDUCE ÷4 ÷4

$= \frac{3}{5}$



Multiplying Fractions

When you are multiplying fractions, you simply multiply the numerators and multiply the denominators. (Always Reduce)

Either before or after

Ex. $\frac{2}{9} \times \frac{7}{11} = \frac{2 \times 7}{9 \times 11} = \frac{14}{99}$

b) $\frac{8}{15} \times \frac{3}{4} =$ reduce as you go or at end

OR

$\frac{24}{60} \div 12$

$\frac{2}{5} \times \frac{1}{1} = \frac{2}{5}$

c) $\frac{5}{12} \times \frac{6}{7} =$

$\frac{5}{2} \times \frac{1}{7}$

$= \frac{5}{14}$

d) $\frac{2}{3} \times \frac{15}{21} =$

$= \frac{2}{1} \times \frac{5}{21}$

$\frac{10}{21}$

Multiplying Mixed Fractions

-ALWAYS Change to IMPROPER first

When you multiply mixed numbers, change them to improper fractions first, then multiply the numerators and multiply the denominators.

a) $1\frac{4}{7} \times 2\frac{1}{6}$

add add

x

$= \frac{11}{7} \times \frac{13}{6}$

$= \frac{143}{42}$

$= 3\frac{17}{42}$

b) $3\frac{3}{5} \times 4\frac{5}{8}$

$= \frac{18}{5} \times \frac{37}{8}$ (÷2 on 18, ÷2 on 8)

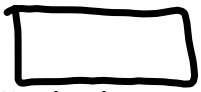
$= \frac{9}{5} \times \frac{37}{4}$

$= \frac{333}{20}$

$= 16\frac{13}{20}$

Class/Homework

WS # 13c → model



color

Attached on next 4 slides

5

7 a b c d e f

8 on back # a b c d

9a

Reduce as you go

WS 118

5. Multiply: $\frac{5}{6} \times \frac{3}{20}$

a) Multiply. Simplify first.

6. In a First Nations school, five-eighths of the Grade 8 students play the drums. Of these students, three-tenths also play the native flute. What fraction of the Grade 8 students play both the drums and the native flute?

7. Multiply. Simplify before multiplying.

a) $\frac{3}{4} \times \frac{8}{5}$

b) $\frac{1}{3} \times \frac{9}{10}$

c) $\frac{7}{5} \times \frac{15}{21}$

d) $\frac{5}{9} \times \frac{3}{5}$

e) $\frac{2}{9} \times \frac{15}{4}$

f) $\frac{7}{3} \times \frac{9}{14}$

10. Multiply (Make sure final answer is reduced)

$\frac{7}{8} \times \frac{1}{2}$

11. Eeva spent $\frac{5}{6}$ of $\frac{3}{4}$ of her total allowance on a hair crimper. What fraction of her total allowance did Eeva have left?

12. a) Find each product.

i) $\frac{3}{4} \times \frac{4}{3}$ ii) $\frac{1}{5} \times \frac{5}{1}$

iii) $\frac{7}{2} \times \frac{2}{7}$ iv) $\frac{5}{6} \times \frac{6}{5}$

8. Multiply.(either multiply then reduce or reduce as you go) WS 118

a) $\frac{3}{5} \times \frac{2}{3}$

b) $\frac{1}{2} \times \frac{5}{10}$

c) $\frac{1}{6} \times \frac{1}{4}$

d) $\frac{13}{8} \times \frac{3}{2}$

e) $\frac{5}{4} \times \frac{11}{10}$

f) $\frac{7}{3} \times \frac{7}{8}$

9. Solve each problem. Show work

a) Josten took $\frac{3}{8}$ of his savings on a shopping trip. He used $\frac{1}{4}$ of the money to buy a new coat.
What fraction of his savings did Josten spend on the coat?

b) Gervais ate $\frac{1}{3}$ of a baguette with his dinner. Chantel ate $\frac{1}{4}$ of the leftover baguette as an evening snack.
What fraction of the baguette did Chantel eat as a snack?

WS 118

13. Use a model to answer each question

a) One-third of the students in a class wear glasses. One-half of the students who wear glasses are girl What fraction of the class is girls who wear glasses?

b) John has $\frac{2}{3}$ of a tank of gas. He uses $\frac{3}{4}$ of the gas to get home. What fraction of a tank of gas does John use to get home? What fraction of the tank of gas is left?

c) Justin ate $\frac{3}{5}$ of a box of raisins. His sister then ate $\frac{1}{4}$ of the raisins left in the box. What fraction of the box of raisins did Justin's sister eat? What fraction of the box of raisins remained?