

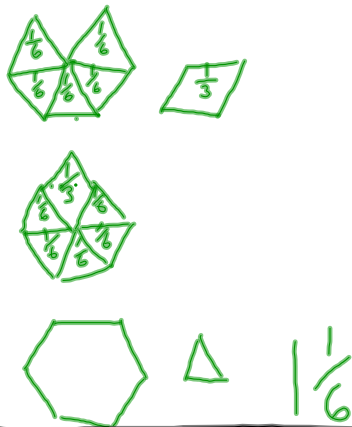
Final Exam Unit 5 Review

1. Use pattern blocks or fraction circles to show each.

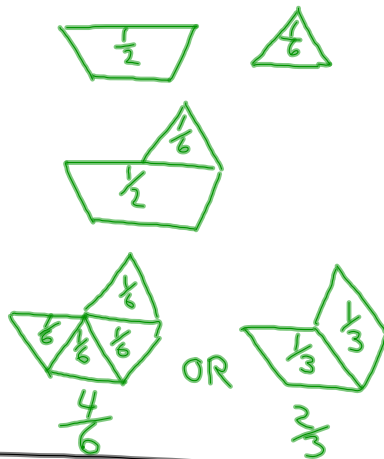
a) $\frac{5}{6} + \frac{1}{3}$ b) $\frac{1}{2} + \frac{1}{6}$ c) $\frac{7}{6} - \frac{2}{3}$ d) $\frac{9}{8} - \frac{3}{4}$

Solutions:

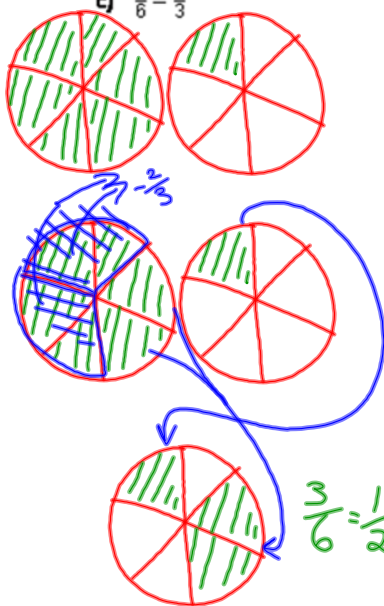
a) $\frac{5}{6} + \frac{1}{3}$



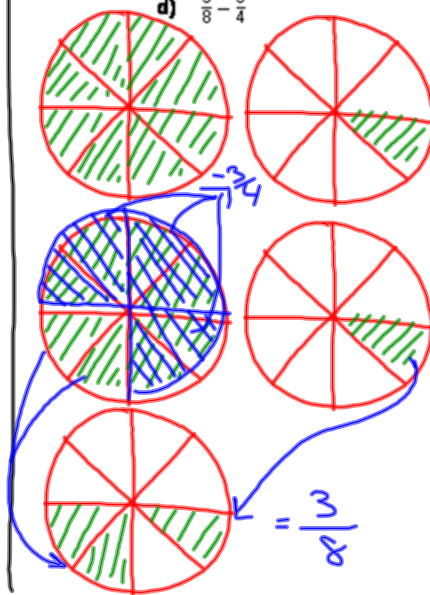
b) $\frac{1}{2} + \frac{1}{6}$



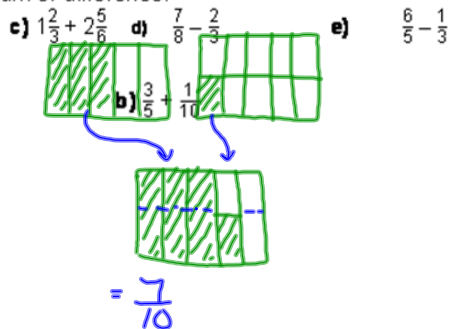
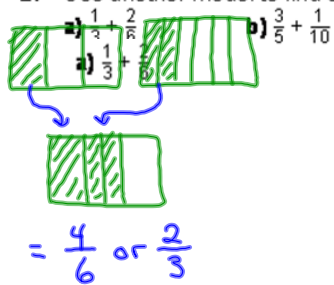
c) $\frac{7}{6} - \frac{2}{3}$



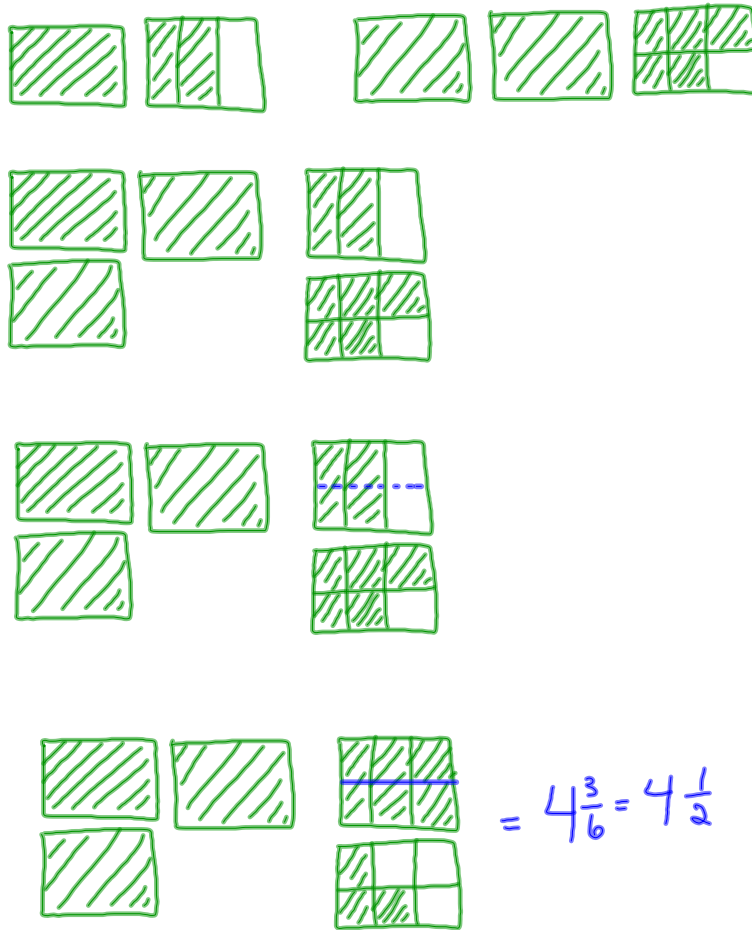
d) $\frac{9}{8} - \frac{3}{4}$



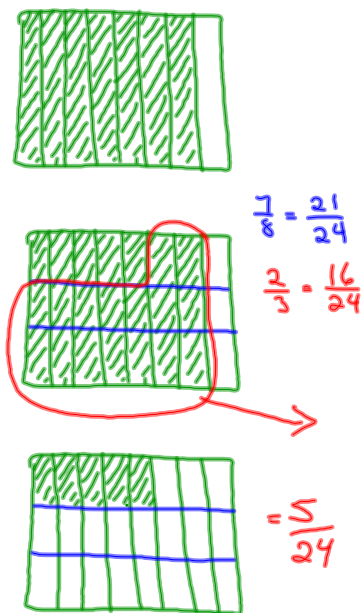
2. Use another model to find each sum or difference.



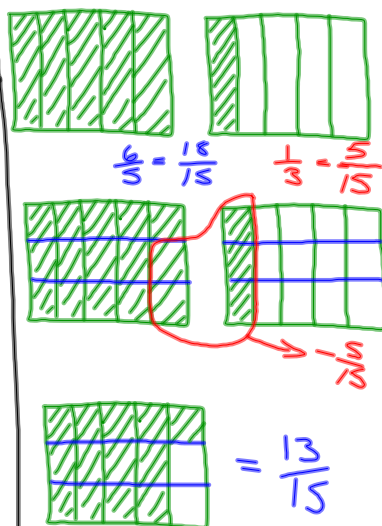
c) $1\frac{2}{3} + 2\frac{5}{6}$



d) $\frac{7}{8} - \frac{2}{3}$



e) $\frac{6}{5} - \frac{1}{3}$



3. Buffy and Molly are making punch. They add $\frac{5}{8}$ cup of water, $\frac{3}{4}$ cup of ginger ale, $\frac{7}{8}$ cup of cranberry juice, and $\frac{1}{4}$ cup of orange juice to a large punch bowl. They want to pour the punch into a jug. Should they use a jug that hold 2 cups of liquid or a jug that hold 3 cups of liquid? How do you know?

$$\frac{5}{8} + \frac{3}{4} + \frac{7}{8} + \frac{1}{4}$$

$$= \frac{5}{8} + \frac{6}{8} + \frac{7}{8} + \frac{2}{8}$$

$$= \frac{20}{8} = 2\frac{4}{8} = 2\frac{1}{2} \text{ cups.}$$

They should use the 3 cup jug so that none will spill.

4. Add.

a) $\frac{3}{5} + \frac{1}{10}$ $= \frac{6}{10} + \frac{1}{10}$ $= \frac{7}{10}$	b) $\frac{7}{2} + \frac{3}{8}$ $= \frac{28}{8} + \frac{3}{8}$ $= \frac{31}{8} = 3\frac{7}{8}$	c) $\frac{6}{8} + \frac{3}{4}$ $= \frac{6}{8} + \frac{6}{8}$ $= \frac{12}{8} = 1\frac{4}{8} = 1\frac{1}{2}$	d) $2\frac{3}{4} + 5\frac{5}{8}$ $= 2\frac{6}{8} + 5\frac{5}{8}$ $= 7\frac{11}{8}$	e) $1\frac{4}{2} + 8\frac{1}{27}$ $= 1\frac{8}{14} + 8\frac{7}{14}$ $= 9\frac{15}{14} = 10\frac{1}{14}$
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5. Which sum is greater? How do you know?

$\frac{1}{8} + \frac{1}{4}$ $= \frac{1}{8} + \frac{2}{8}$ $= \frac{3}{8} = 1\frac{5}{8}$	$\frac{5}{6} + \frac{3}{5}$ $= \frac{25}{30} + \frac{18}{30}$ $= \frac{43}{30} = 1\frac{13}{30}$	$1\frac{5}{8} + \frac{3}{4}$ $= \frac{150}{240} > \frac{104}{240}$	$\frac{5}{6} + \frac{3}{5}$ $= \frac{104}{240}$
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So $\frac{1}{8} + \frac{1}{4} > \frac{5}{6} + \frac{3}{5}$.

6. Glenn has $\frac{5}{8}$ of a cup of walnuts. He needs $\frac{1}{3}$ of a cup of walnuts to make a loaf of banana bread. Does Glenn have enough? If your answer is yes, explain why it is enough. If your answer is no, how much more does Glenn need?

$\frac{5}{8} < \frac{1}{3}$ Since $\frac{15}{24} < \frac{16}{24}$ then $\frac{5}{8} < \frac{1}{3}$ which means Glenn does not have enough.

7. Subtract without a model.

a) $8 - \frac{7}{8}$ $= 7\frac{1}{8}$	b) $\frac{5}{6} - \frac{5}{9}$ $= \frac{15}{18} - \frac{10}{18}$ $= \frac{5}{18}$	c) $\frac{3}{4} - \frac{1}{6}$ $= \frac{9}{12} - \frac{2}{12}$ $= \frac{7}{12}$	d) $3 - \frac{1}{6}$ $= 2\frac{5}{6}$	e) $4\frac{1}{2} - 1\frac{1}{2}$ $= 3$	f) $3 - 2\frac{1}{6}$ $= \frac{5}{6}$
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8. Two-fifths of the students in a class voted for a trip to the zoo. One-third voted for a trip to the museum.

- a) Which trip had more votes?
 b) What is the difference of the fractions?
 c) What fraction of the class did not vote?

a) $\frac{2}{5}$ $\frac{1}{3}$
 $\frac{6}{15} > \frac{5}{15}$
 Trip to the zoo
 had more votes.

b) $\frac{6}{15} - \frac{5}{15}$
 $= \frac{1}{15}$

c) $\frac{6}{15} + \frac{5}{15}$
 $= \frac{11}{15}$ voted, so
 $1 - \frac{11}{15} = \frac{4}{15}$ did not vote.

9. Write as an improper fraction in simplest form.

a) $2\frac{4}{9}$ b) $5\frac{5}{8}$

a) $2\frac{4}{9} = \frac{22}{9}$

b) $5\frac{5}{8} = \frac{45}{8}$

$9 \times 2 + 4$
 $= 18 + 4$
 $= 22$

$8 \times 5 + 5$
 $= 40 + 5$
 $= 45$

10. Write as a mixed number in simplest form.

a) $\frac{19}{9}$ b) $\frac{23}{8}$

a) $\frac{19}{9} = 2\frac{1}{9}$

b) $\frac{23}{8} = 2\frac{7}{8}$

$19 \div 9 = 2$
 with 1 remainder

$23 \div 8 = 2$
 with 7 remainder

11. Margie ran $2\frac{3}{4}$ km on Monday, $3\frac{3}{8}$ km on Wednesday, and $2\frac{1}{2}$ km on Friday.

- a) How many kilometres did Margie run altogether?
 b) Margie tries to run 10 km each week.

How many more kilometres does Margie need to run to complete 10 km?

a) $2\frac{3}{4} + 3\frac{3}{8} + 2\frac{1}{2}$
 $= 2\frac{6}{8} + 3\frac{3}{8} + 2\frac{4}{8}$
 $= 7\frac{13}{8} = 8\frac{5}{8}$ km.

b) $10 - 8\frac{5}{8}$
 $= \frac{80}{8} - \frac{69}{8}$
 $= \frac{11}{8} = 1\frac{3}{8}$

can be
 done
 mentally

12. Write an addition statement for each model.

