Warm up Grade 6

Date: _____

Chapter 5
Lesson 4 Day 1

#1)Think of a clock to answer the following
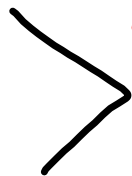
David watch a movie that was 2 ¼ hours long. Frank watched a movie that was 125 hours long. Who watched the longer movie?

60

Change Improper to mixed

(Show work on how you know)

$$2\frac{1}{4} \overset{\times 15}{\underset{\times 15}{}}$$

$$2\frac{15}{60}$$

$$2\frac{5}{60} \leftarrow$$

$$\frac{125}{60} = 2\frac{5}{60}$$

$$2\frac{15}{60} > 2\frac{5}{60}$$

Common denominators of 60 on fraction

David watched the longer movie

$5 \frac{1}{4}$ dozens of rolls

$\searrow 12$

5 full groups of 12

$5 \times 12 = 60$

$+3$

$\overline{}$

63 rolls

$\frac{1}{4}$ of $12 = \frac{12}{4} = 3$ rolls

8a) $\frac{7}{9}$, $2\frac{1}{3}$, $\frac{17}{3}$

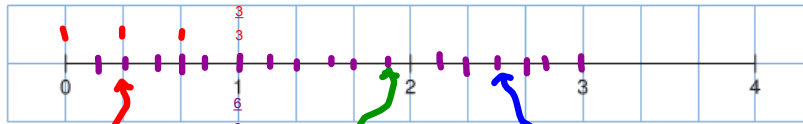$\frac{7}{9}$, $2\frac{1}{3}$, $5\frac{2}{3}$

↓ less than1

greatest to least

$\frac{17}{3}$, $2\frac{1}{3}$, $\frac{7}{9}$

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5. Use 1-cm grid paper.
   Draw a number line with the benchmarks 0, 1, 2, 3, and 4 as shown below.

Place these numbers on the number line:

$$\frac{5}{2}, \frac{2}{3}, 1\frac{5}{6}$$

$\frac{4}{6}$ $\frac{11}{6}$

$$\frac{5}{2} = \frac{15}{6}$$

6. For each pair of numbers below:
   • Place the two numbers on a number line.
     Which strategy did you use?
   • Which of the two numbers is greater?
     How do you know?

   a) $\frac{5}{8}, \frac{7}{16}$ b) $\frac{3}{4}, \frac{9}{12}$ c) $2\frac{1}{2}, \frac{9}{2}$

   d) $\frac{13}{10}, 1\frac{1}{5}$ e) $\frac{29}{5}, 6\frac{2}{10}$ f) $3\frac{5}{6}, 3\frac{8}{12}$

   a) $\frac{5}{8} = \frac{10}{16} > \frac{7}{16}$

   b) $\frac{3}{4} = \frac{9}{12} = \frac{9}{16}$ wait

   b) $\frac{3}{4} = \frac{9}{12} = \frac{9}{16}$

   c) $2\ 1/2 = \frac{5}{2} < \frac{9}{2}$

   d) $\frac{13}{10} > 1\frac{1}{5}$ $\frac{6}{5} = \frac{12}{10}$

   e) $\frac{29}{5}$ $6\frac{2}{10}$ $\frac{62}{10}$
      $\frac{58}{10} < \frac{62}{10}$

   f) $3\frac{5}{6}, 3\frac{8}{12}$ $\frac{23}{6}$ $\frac{56}{12}$
      $\frac{46}{12} < \frac{56}{12}$

7. Place the numbers in each set on a number line.
   Show how you did it.
   List the numbers from least to greatest.

   a) $\frac{5}{6}, \frac{15}{9}, 1\frac{5}{12}$ b) $\frac{9}{4}, 2\frac{2}{3}, \frac{11}{6}$ c) $\frac{9}{10}, \frac{7}{5}, \frac{11}{4}$ d) $\frac{10}{3}, 2\frac{1}{4}, \frac{3}{2}$

   $\frac{5}{6}$ $\frac{15}{9}$ $\frac{17}{12}$

   $\frac{5}{6}$ x6 $\frac{15}{9}$ x4 $\frac{17}{12}$ x3

   $\frac{30}{36}$ $\frac{60}{36}$ $\frac{51}{36}$

   Order

   $\frac{5}{6}$ $1\frac{5}{12}$ $\frac{15}{9}$

   $\frac{10}{3}$

   $\frac{9}{4} = \frac{27}{12}$

   $\frac{10}{3} = \frac{40}{12}$

   $\frac{11}{6} = \frac{22}{12}$

   $\frac{11}{6}, \frac{9}{4}, 2\frac{2}{3}$

8. Hisa says that $\frac{17}{3}$ is greater than $5\frac{3}{4}$. Is she correct?
   Use pictures, numbers, and words to explain.

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$$\frac{17}{3} = 5\frac{2}{3} \quad < \quad 5\frac{3}{4}$$

1/3 from being whole   1/4 from being whole

1/3 is a bigger gap than 1/4 from being whole

or

$$5\frac{2}{3} = 5\frac{8}{12} \qquad\qquad 5\frac{3}{4} = 5\frac{9}{12}$$

$$5\frac{8}{12} \quad < \quad 5\frac{9}{12}$$

9. Adriel watched a $1\frac{3}{4}$-h movie on TV.
   Nadir watched 3 half-hour sitcoms.
   Who watched more TV? How do you know?

Nadir

$$\frac{3}{2} = 1\frac{1}{2} = 1\frac{2}{4} \quad < \quad 1\frac{3}{4}$$

Adriel watched more

10. Justine played a board game for $3\frac{1}{2}$ h.
    Marty played the same board game for $\frac{37}{12}$ h.
    Who played longer?
    Sketch a number line to show how you know you are correct.

$$3\frac{1}{2} = \frac{7}{2} = \frac{42}{12} \text{ hr}$$

$$3\frac{1}{12} \text{ hr}$$

$$\frac{37}{12} = 3\frac{1}{12} \text{ hr}$$

Justine played longer

11. Ratu, Addie, and Penny cooked pancakes
    for their school's maple syrup festival
    in McCreary, Manitoba.
    Ratu made $4\frac{1}{2}$ dozen pancakes,
    Addie made $\frac{28}{6}$ dozen pancakes,
    and Penny made $\frac{13}{3}$ dozen pancakes.
    Who made the most pancakes?
    Who made the least?
    Sketch a number line to show how you know.

$$R \quad 4\frac{1}{2} = 4\frac{3}{6}$$

$$A \quad \frac{28}{6} = 4\frac{4}{6} \leftarrow \text{Most}$$

Addie made the most

$$P \quad \frac{13}{3} = 4\frac{1}{3} = 4\frac{2}{6}$$

12. Florence and her friends Rafael and Bruno race
    model cars.
    Florence's car completed $2\frac{1}{4}$ laps of a track in 1 min.
    Rafael's car completed $\frac{8}{3}$ laps of the track in 1 min.
    Bruno's car completed $\frac{11}{12}$ laps of the track in 1 min.
    Whose car was fastest? How do you know?

13. Use your ruler as a number line.
    Visualize placing these fractions on your ruler: $4\frac{3}{5}, \frac{11}{2}, \frac{83}{10}$
    Describe where you would place each fraction.
    Which fraction is the greatest? The least?