Name _____   Date _____

1.

  a. Plot the following points on the number line without measuring.

    i. $2\frac{1}{6}$ ii. $3\frac{3}{4}$ iii. $\frac{33}{9}$ $= 3\frac{6}{9}$

  b. Use the number line in Problem 1(a) to compare the fractions by writing >, <, or =.

    i. $\frac{33}{9}$ ___**>**___ $2\frac{1}{6}$ ii. $\frac{33}{9}$ ___**<**___ $3\frac{3}{4}$

2.

  a. Plot the following points on the number line without measuring.

    i. $\frac{65}{8}$ $= 8\frac{1}{8}$ ii. $8\frac{5}{6}$ iii. $\frac{29}{4}$ $= 7\frac{1}{4}$

  b. Compare the following by writing >, <, or =.

    i. $8\frac{5}{6}$ ___**>**___ $\frac{65}{8}$ ii. $\frac{29}{4}$ ___**<**___ $\frac{65}{8}$

  c. Explain how you plotted the points in Problem 2(a).

    I turned each fraction into a mixed number. The whole number indicated the interval and then the fraction told me where in the interval to plot the point.

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3. Compare the fractions given below by writing >, <, or =. Give a brief explanation for each answer, referring to benchmark fractions.

a. $5\frac{1}{3}$ _____**<**_____ $5\frac{3}{4}$

$5\frac{1}{3}$ is less than $5\frac{1}{2}$
$5\frac{3}{4}$ is greater than $5\frac{1}{2}$

b. $\frac{12}{4}$ _____**<**_____ $\frac{25}{8}$
    3 $3\frac{1}{8}$

$\frac{25}{8}$ is $\frac{1}{3}$ greater than 3.
$\frac{12}{4}$ is equal to 3.

c. $\frac{18}{6}$ _____**<**_____ $\frac{17}{4}$
    3 $4\frac{1}{4}$

$\frac{18}{6}$ is equal to 3
$\frac{17}{4}$ is greater than 4

d. $5\frac{3}{5}$ _____**>**_____ $5\frac{5}{10}$

$5\frac{3}{5}$ is greater than $5\frac{1}{2}$
$5\frac{5}{10}$ is equal to $5\frac{1}{2}$

e. $6\frac{3}{4}$ _____**>**_____ $6\frac{3}{5}$

Fourths are larger than fifths.
So 3 fourths is bigger than
                    3 fifths.

f. $\frac{33}{6}$ _____**>**_____ $\frac{34}{7}$
    $5\frac{3}{6}$ $4\frac{6}{7}$

$\frac{33}{6}$ is greater than 5

$\frac{34}{7}$ is less than 5

g. $\frac{23}{10}$ _____**<**_____ $\frac{20}{8}$
    $2\frac{3}{10}$ $2\frac{4}{8}$

$\frac{23}{10}$ is less than $2\frac{1}{2}$

$\frac{20}{8}$ is equal to $2\frac{1}{2}$

h. $\frac{27}{12}$ _____**<**_____ $\frac{15}{6}$
    $2\frac{3}{12}$ $2\frac{3}{6}$

Twelfths are smaller than sixths
So $\frac{3}{12}$ is smaller than $\frac{3}{6}$

i. $2\frac{49}{50}$ _____**<**_____ $2\frac{99}{100}$

Fiftieths are larger than hundredths
$2\frac{49}{50}$ is 1 fiftieth away from 3

$2\frac{99}{100}$ is 1 hundredth away from 3.

j. $6\frac{5}{9}$ _____**>**_____ $6\frac{49}{100}$

$6\frac{5}{9}$ is greater than $6\frac{1}{2}$
$6\frac{49}{100}$ is less than $6\frac{1}{2}$

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