Strengthening Fraction Reasoning To Lay the Foundation for Algebra Success

Nadine Bezuk (Nadine.Bezuk@sdsu.edu) 2012 NCTM Regional Conference, Dallas, TX

Strategies for ordering and comparing fractions

$\frac{5}{8}, \frac{3}{8}, \frac{6}{8}$	Fractions with the same denominators can be	
	compared by comparing their numerators.	

$$\frac{4}{10}$$
, $\frac{4}{8}$ Fractions with the same numerator can be compared by comparing the size of their pieces.

$$\frac{4}{9}$$
, $\frac{1}{2}$, $\frac{3}{5}$ Fractions close to a benchmark can be compared by finding their distance from a benchmark.

$$\frac{99}{100}$$
, $\frac{6}{7}$, $\frac{15}{16}$ Fractions close to one can be compared by finding their distance from one.

"Clothesline" Fractions Activity

Set 1: Set 2: Set 3: Set 4:
$$\frac{1}{2}, \frac{3}{4}, 1 \qquad \frac{1}{3}, \frac{7}{4} \qquad \frac{8}{15}, \frac{4}{9}, \frac{15}{29} \qquad \frac{1}{4}, \frac{3}{13}, \frac{6}{27}$$

Set 5:

$$x, 2x, -x$$

$$\frac{1}{2}x, \frac{x}{2}, \frac{1}{2x}(x \neq 0)$$

$$\frac{x+1}{x}, \frac{X-1}{x}, \frac{x}{x}(x \neq 0)$$

Other Sets of Numbers to Order

Set 8:	Set 9 :	<i>Set</i> 10 :	Set 11:
$\frac{1}{8}$, $\frac{5}{6}$, $\frac{15}{16}$	<i>x</i> + 2 , <i>x</i> – 1 , 1 – <i>x</i>	$\frac{1}{x}, \frac{2}{x}, \frac{3}{x}(x \neq 0)$	$\frac{x-1}{x+1}(x\neq -1)$

Slides and "fraction tents" are available: www.sdsu-pdc.org Click on "PDC Presentations"

FREE online fraction number line, courtesy of Conceptua™ Math, is available at www.conceptuamath.com. For more information, contact them at info@conceptuamath.com.