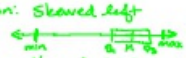
9/16/13 Warm-Up: Grab a new warm-up sheet. On it, write the three types of distributions and draw a box plot example of each. No numbers required.

Distribution: Skewed left



skewed right

uniform

Notes - 9/16/13 Combining Like Terms

Numbers
Variables → a-z
fractions

$4a$ → variable; 4 → coefficient

$4a + 5a + 8a$ → same variable

$= 17a$

$5b + 6a + 7b$

$= 12b + 6a$

Combining Like Terms with Exponents

$6a + 3a^2$ — not the same term!!!

$6a^2 + 3a^2 = 9a^2$ — same term!

$a^2 + a^2 = 2a^2$

$6b^2 + b^2 = 7b^2$

$6b^2 + b^2 + a^2 = 7b^2 + a^2$

When combining like terms:

First: check for similar variables

Then: Make sure their exponents are the same!

ab → a times b → still, only one term

$3ab + 2b + 8a$ — nothing is combinable!

$7ab + 9a + 6b + 2ab = 9ab + 9a + 6b$

$8xy - 7x + 8xy - 9y$

$= xy - x - y$

$0t + 3st + 4s + 9s + 10t$

$3st + 13s$

Dividing like terms ★ You can only cancel out terms that are being multiplied.

1) $\frac{14r + 12s}{4s - 10s} = \frac{14r + 12s}{-6s} = \frac{2(7r + 6s)}{2(-3s)} = \frac{7r + 6s}{-3s}$

2) $\frac{2x - 6y + 4x}{3y - 8 + y} = \frac{6x - 6y}{4y - 8} = \frac{3(3x - 3y)}{3(2y - 4)} = \frac{3x - 3y}{2y - 4}$

3) $\frac{12x - 7x}{5x} = \frac{5x}{5x} = 1$ ★ anything over itself equals 1!