

4-1 Mean Median Mode

@ in order 2 3 4 4 4 5 5 6 6 6 7 7 8 5 is the median
 $2+3+4+4+4+5+5+6+6+6+7+7+8 = 67$ 4 & 6 = mode
 $67 \div 13 = 5.15$ for mean

@ 2, 2, 3, 3, 4 median 3 mode 2, 3 mean $\frac{2+2+3+3+4}{5} = 2.8$

@ 2.1, 2.34, 3.4, 4, 5.32, 12.3 median $\frac{3.4+4}{2} = 3.7$ No mode
 $\frac{2.1+2.34+3.4+4+5.32+12.3}{6} = 4.91$ mean

@ $\frac{1}{2}, \frac{3}{4}, 1\frac{1}{2}, 2, 5$ median $1\frac{1}{2}$ mode - none
 mean $\frac{\frac{1}{2} + \frac{3}{4} + 1\frac{1}{2} + 2 + 5}{5} = 1.95$ or $1\frac{19}{20}$

@ $1\frac{1}{2}, 1\frac{2}{3}, 2, 3, 3, 5, 5, 9\frac{1}{4}$ median 3 mode 3, 5
 Mean $\frac{1\frac{1}{2} + 1\frac{2}{3} + 2 + 3 + 3 + 5 + 5 + 9\frac{1}{4}}{8} = 3\frac{77}{96}$

@ $\frac{480 + 430 + 460 + 400 + x}{5} \geq 450$

$5 \cdot \frac{1770 + x}{5} \geq 450 \cdot 5$

$\frac{1770 + x}{-1770} \geq \frac{2250}{-1770}$
 $x \geq 480$

The student must score 480 or better

With a 480 on the last test, the mode is 480 and 460 is the median.

@ 16, 18, 18, 19, 21, 21, 21, 27, 31, 35, 37, 40, 40, 54, x

$\frac{16 + 18 + 18 + 19 + 21 + 21 + 21 + 27 + 31 + 35 + 37 + 40 + 40 + 54 + x}{15} = 29$

$15 \cdot \frac{398 + x}{15} = 29 \cdot 15$

$\frac{398 + x}{-398} = \frac{435}{-398}$
 $x = 37$

27 is the median