**1.** Consider the wages of staff at a factory below:

| Staff | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Salary | 15k | 18k | 16k | 14k | 15k | 15k | 12k | 17k | 90k | 95k |

What is the **mean** salary for these ten employees?  What is the median salary?  Which measure of central tendency is a more accurate reflection of the typical salary of a worker?

**MEAN_____**


**MEDIAN_____**


**WHICH IS BEST?_____**


**2.** Opal Divine's restaurant offers several hamburgers and other "house specialties."

| | | Which measure of central tendency best |
|---|---|---|
| Divine Burger | $8.95 | describes the cost of an entrée? |
| Southwest | $10.95 | |
| Divine Patty Melt | $9.95 | |
| Newport Club | $10.95 | What is the numerical value?  SHOW WORK: |
| Rock-A-Fella | $10.95 | |
| Nacho | $10.95 | |
| Urban Bubba | $9.95 | |
| Bandera | $9.95 | |
| Chicken Tenders Basket | $7.95 | |
| Fish and Chips | $8.95 | |
| Baja Fish Tacos | $9.25 | |
| Zihuatanejo Shrimp Tacos | $11.95 | |
| Smoked Pulled Pork Tacos | $9.45 | |

**3.** The box and whisker plot below shows player statistics for the Houston Rockets.
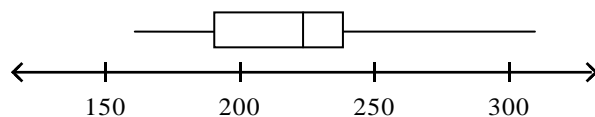


**Players' Weight (lb.)**

**a.** What is the range of the players' weight?


**b.** What is the median weight?

**4.** The box and whisker plot shows data for airline departure delays for 3 days.  What conclusions can you make regarding the range and median values?
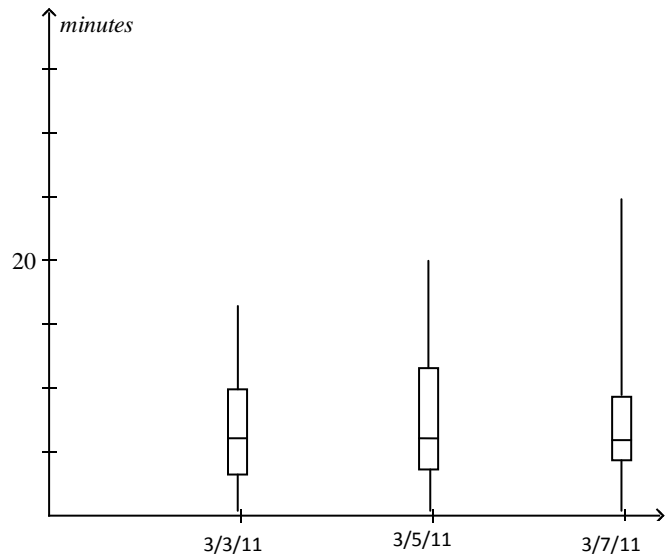
Date 3/3/11:
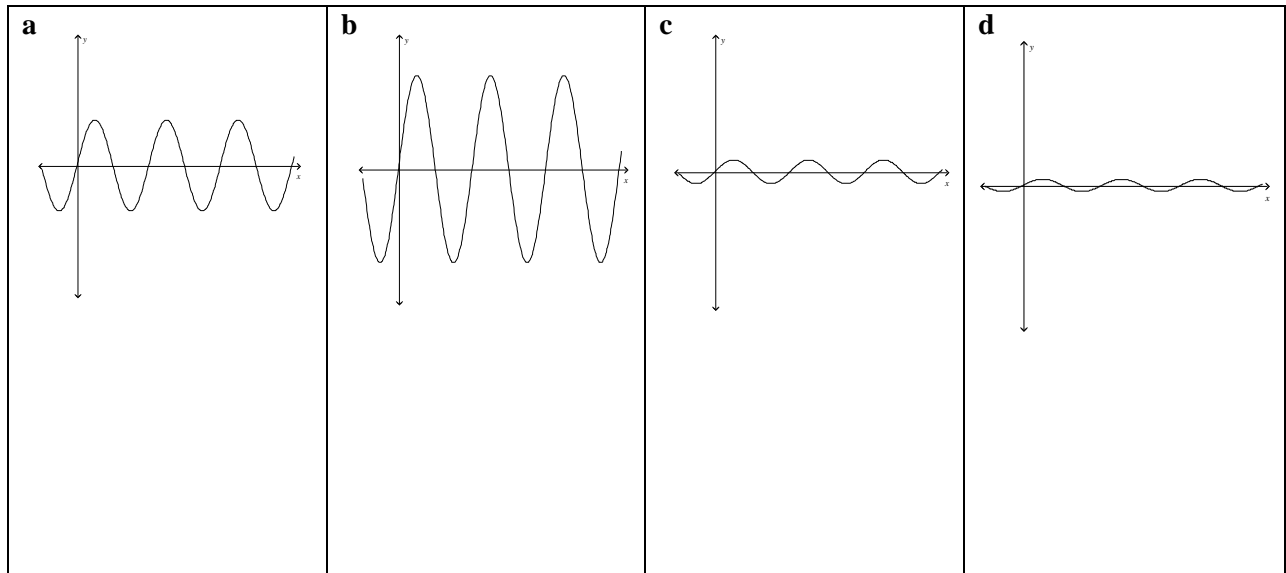Range:_____   Median:  _____

Date 3/5/11:
Range:_____   Median:  _____

Date 3/7/11:
Range:_____   Median:  _____

So what is in common?

And the other?  Highest to lowest?



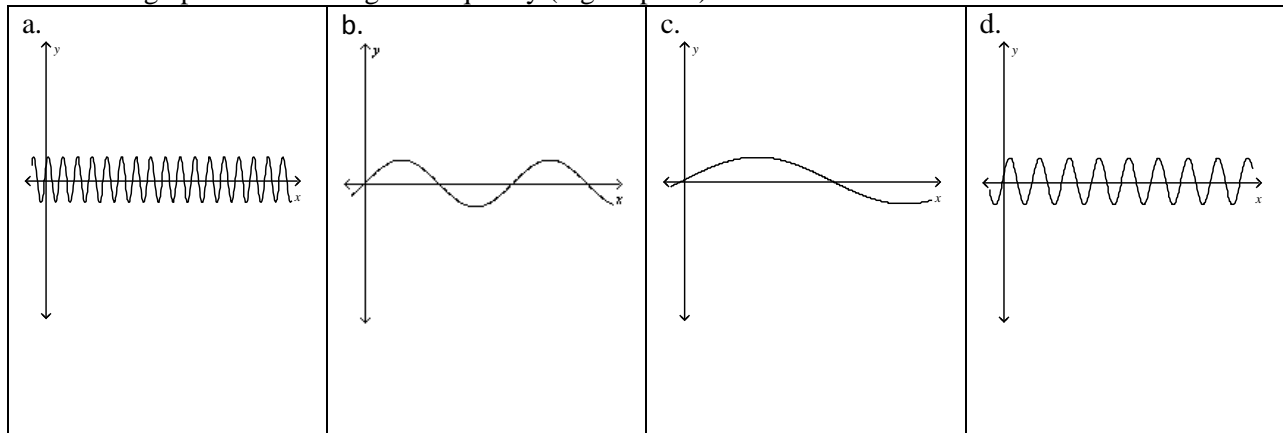**5.** Which graph shows the louder sound?



**6.** A period of $\frac{1}{8} \frac{seconds}{cycle}$ is equivalent to what frequency? *(what is the relationship between period and frequency?)*

**7.** Which graph shows the higher frequency (higher pitch)?

| a. | b. | c. | d. |
|---|---|---|---|

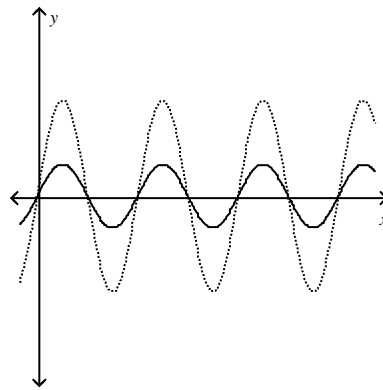**8.** What is the same?

a. Frequency
b. Period
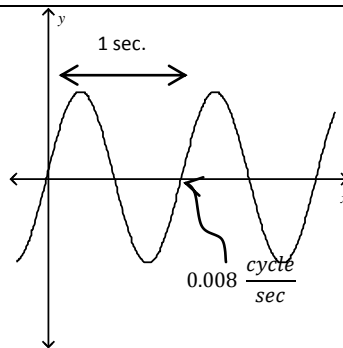c. Amplitude
d. Nothing
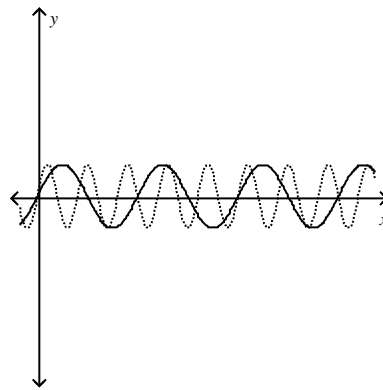
**9.** Which is a false statement?

a. Amplitudes are equal
b. Frequencies are equal
c. Periods are equal
d. Dashed curve is louder than solid curve

**10.** Study the curve. What is the frequency?

What is the period?

*given sound data, model with a sin regression    (STAT  CLAC  C)*

1 sec.

$0.008 \dfrac{cycle}{sec}$

**11.** For the following table of data, which is a better fit a linear regression or a quadratic regression? Now calculate the regression equation.

| x | y |
|---|---|
| 0 | 0.5 |
| 1 | 66.5 |
| 2 | 100.5 |
| 3 | 102.5 |

**ans:**_____

**12.** For the following table of data, which is a better fit a linear regression or a quadratic regression? Now calculate the regression equation.

| time | cost |
|---|---|
| 0 | -21 |
| 5 | -41 |
| 8 | 43 |
| 11 | 199 |

**ans:** _____

**13.** Financial advisors presented the following table of data to their clients. The advisors were asked what the estimated value of the investment would be in 10 years (120 months)?

| months | value (thousand) |
|---|---|
| 6 | 70 |
| 12 | 121 |
| 18 | 172 |
| 24 | 223 |
| 30 | 274 |

Use a regression equation to determine the value.

**ans.**_____