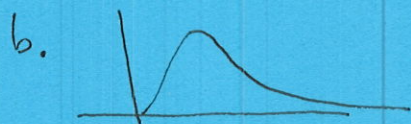
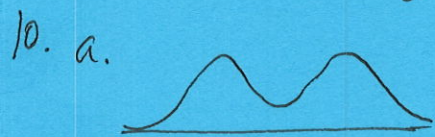


1. pictograms are bad because the area scales differently from the height. So if one clown is twice as tall, then the area covered by the clown is $2^2 = 4$ times as big. Our brains perceive the 4. This is why bar graphs should have equal widths, so only the height change alters the area.
2. Most of the coins would be relatively recent, but older coins do remain in circulation. There are no coins from the future on the other end.
3. Clearly skewed to the right. Most players will make relatively less, but a few stars will make a lot more.
4. a. skewed left. The biggest group is around age 60. only a handful near 30.
 b. bimodal, not symmetric or skewed. biggest peaks around 4.5 minutes and also around 1.9 minutes.
 c. roughly symmetric. mean around 75.
 d. skewed right. most common values near 5.32.
5. the part on the right could be described as roughly symmetric or somewhat skewed right, but there is an outlier around 5. Most common value is 42 or so.
5. 50% of all incomes are less than this, and 50% are above it.
6. Less. income is skewed right and so pulls the average into higher values.
7. The box plot is better for small quantities of data.
 5# summary — min = 107, 1st quartile = 139, Median = 153, Third quartile = 179, max = 195
 histogram is more reliable for shape of distributions for larger data sets

8. they reported The mean since 139 is less than half of 411.

9. 25.24. it is roughly The average distance from The mean.
it is a measure of The spread.



11. The graphs are The same if we use The same # of bins

12. See above (and Excel)

13. a. very slightly right skewed - most Common between 50 and 58
Strong tail (none) most common is 60-67

b. See Excel

c. Smokers had lower birth weight babies

14. 75.89