Task
Apply Data Management
Sample Solution

Solutions will vary since data is randomly selected. Not all 200 points can be seen on the graphs, because some points are on top of others.

1. a) $190 \div 200 = 0.95$; 95th percentile
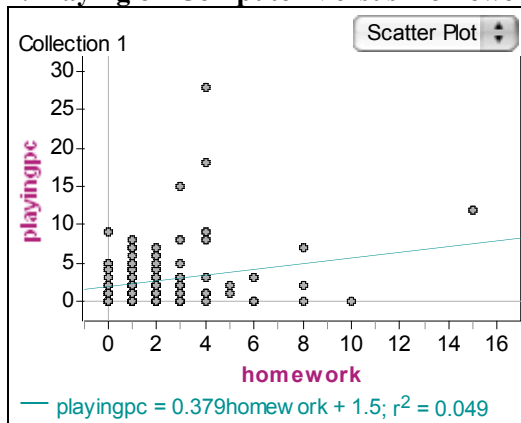**b)** $0.75 \times 200 = 150$; 150th piece of data $= 2$ h

2. a) $176 \div 200 = 88$th percentile; 150th piece of data $= 3$ h
b) $193 \div 200 = 97$th percentile; 150th piece of data: 1 h
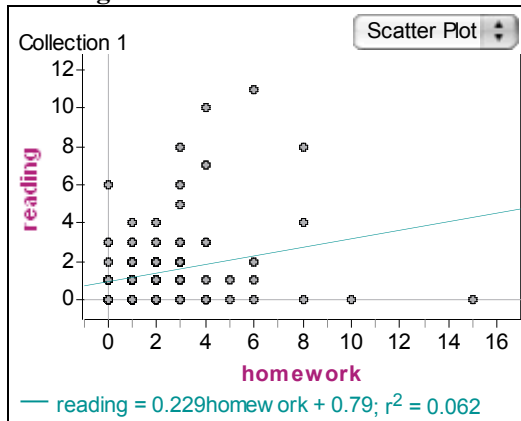**c)** $169 \div 200 = 85$th percentile; 150th piece of data: 3 h
d) $173 \div 200 = 87$th percentile; 150th piece of data: 4 h

3. In general, students spend more time playing on computers, watching television, and playing music than they spend on homework. Students spend less time reading than they spend on homework.
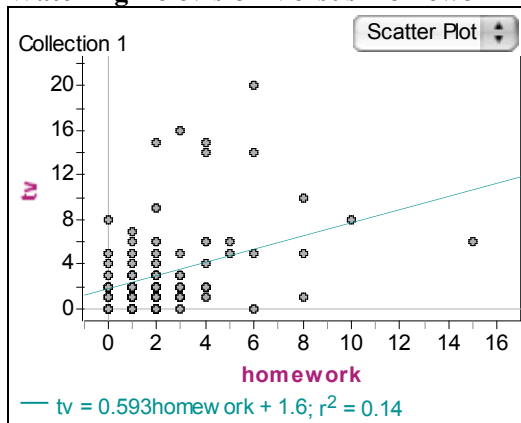
4. Playing on Computer Versus Homework

$r^2 \doteq 0$. There no relationship between time spent playing on computers and time spent on homework.
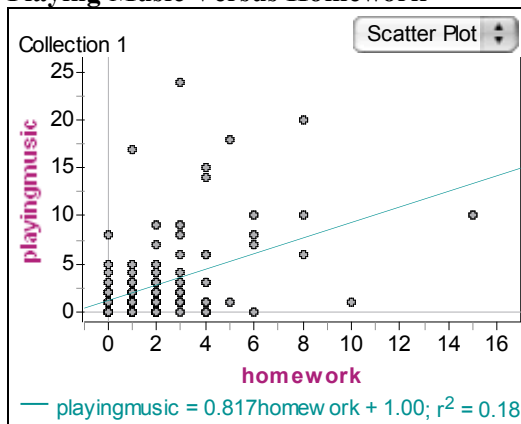
Reading Versus Homework

$r^2 \doteq 0$. There no relationship between time spent reading and time spent on homework.

Watching Television Versus Homework

$r^2 < 1$. There is a very weak relationship between time spent watching television and time spent on homework.

Playing Music Versus Homework

$r^2 < 1$. There is a very weak relationship between time spent playing music and time spent on homework.

5. Each scatter plot shows either a very weak relationship or no relationship. In each case, there might have been a negative relationship between the amount of time spent on the given activity and the time spent on homework. Unfortunately, none of the scatter plots shows a strong relationship. You cannot make any positive conclusions from the scatter plots.