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7.5.15 Part 1 Homework Set

Date $\qquad$

1. Look at the distribution of years since the pennies were minted from Example $\mathbf{1}$ in your notes. Which of the following box plots seem like they might not have come from a random sample from that distribution? Explain your thinking.

## Box Plots of Three Random Samples of Penny Ages

Pennies 1


Pennies 2


Pennies 3

2. Given the following sample of scores on a physical fitness test, from which of the following populations might the sample have been chosen? Explain your reasoning.

Dot Plots of Four Populations and One Sample

3. Consider the distribution below:
A. Why is it reasonable to think that these samples could have come from the population?


## Dot Plots of Five Samples of Different Sizes

B. What do you
observe about the sample distributions as the sample size increases?

4. Solve the equation. Show your work. Check your solution. $75=4 d-d+45$
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7.5.15 art 2 Homework Set

Date $\qquad$

1. The suggestions below for how to choose a random sample of students at your school were made and vetoed.
A) Name 2 people:
i) in the population
ii) not in the population
B) For each of the following examples, answer "Who in your school would not have an equal chance of being selected if you?:"
i) Use every fifth person you see in the hallway before class starts?
ii) Use all of the students taking math the same time as your class meets?
iii) Have students who come to school early do the activity before school starts?
2. A teacher decided to collect homework from a random sample of her students, rather than grading every paper every day.
b) Describe how she might choose a random sample of five students from her class of 35 students.
c) Suppose every day for 75 days throughout an entire semester she chooses a random sample of five students. Do you think some students will never get selected? Why or why not?
