

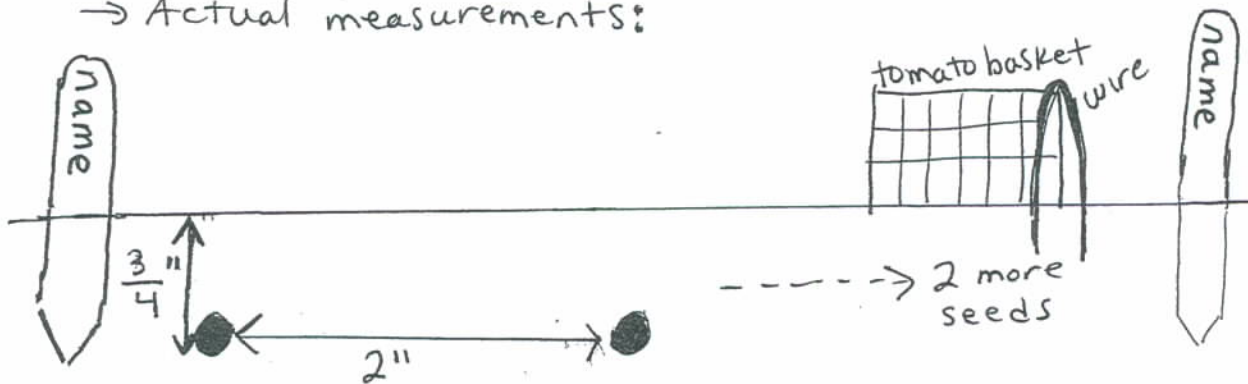
Garden Expectations

pea growth activity for algebra I

- ① walk, and only on the wood chip paths.
 - ② Use tools appropriately and safely, put away when done.
 - ③ Do only your assigned activity.
 - * Leave everything else where you found it.
 - * Do not pick, harvest, or eat anything without adult permission.
 - ④ Enjoy your garden with respect. Remember: the same expectations apply as if you were in class.
-

PLANTING PEAS IN THE GROUND (variety: sugar snap)

- Work with your assigned partner. Each person can plant some. Everyone plants at once, so find a place where you fit, and take turns with your partner. Plant near the trellis so your peas can grow up it.
- Plant $\frac{3}{4}$ " deep and 2" apart. Put one of your name tags on each edge facing inward toward your seeds. (will mulch to 1" deep)
- Put a tomato basket over some of your seeds and anchor it with the wire pin.
- Water your seeds gently - don't get other areas muddy.
- This paper's width is $8\frac{1}{2}$ ", so is the space you need.
- Actual measurements:



PLANTING IN POTS

Each group plants 2 seeds per pot. 1" deep. no labels needed.

Name _____

per. _____

measuring the Growth of Peas 2008-2009

- ① Graph your data points from your pea growth chart. Do NOT connect the points.
- ② Is your graph a relation? _____ Is it a function? _____
- ③ What is the domain? _____
what is the range? _____

④a Work with the points from the fall and winter first. These points are from 10/22/08 through the end of January. Draw a "line of best fit" through these points, being sure to include the point on 10/22 and at least one other point. A clear ruler will be helpful. Circle the included points on your graph and pea growth chart. Note: your text page 378 may be helpful.

b) What point contains the x and y intercept of the graph? (____, ____).
What is the meaning of this point for your pea plants?

c) Find the slope between your circled points. Show work.

The slope, including units, is _____
What does your value for the slope mean? Be specific.

d) What is the equation for your line of best fit?
Show work.

⑤ Now work with the points from the late winter to spring. Use the remaining points starting with your first point in February.

- ① Draw a line of best fit, including 2 of these points. Circle these points on your graph and pea growth chart.
- ② Calculate the slope. Show work.

The slope is _____

③ What is the equation for your line of best fit? Show work

⑥ Summary -

① Why do you think the slopes for the 2 lines were different? Explain.

② We approximated the graph by using 2 lines to take into account differences at different times of the year. Do you think this is best, or do you think the graph is a curve? Explain.

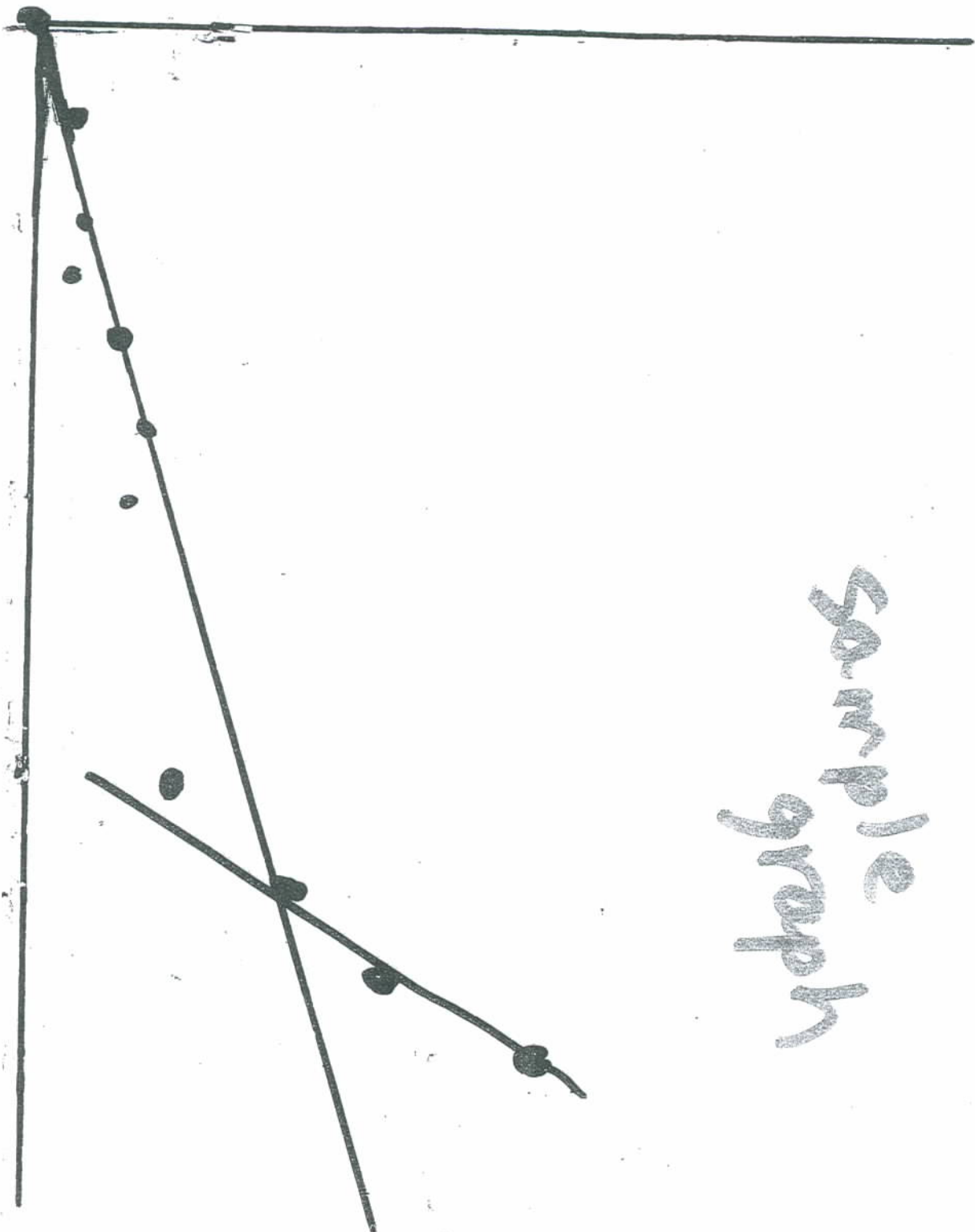
③ Were you really working with lines or line segments?

④ How could we have improved this activity? Be specific.

TURN IN WITH YOUR PEA GROWTH CHART AND GRAPH!

Average
Height
(cm)

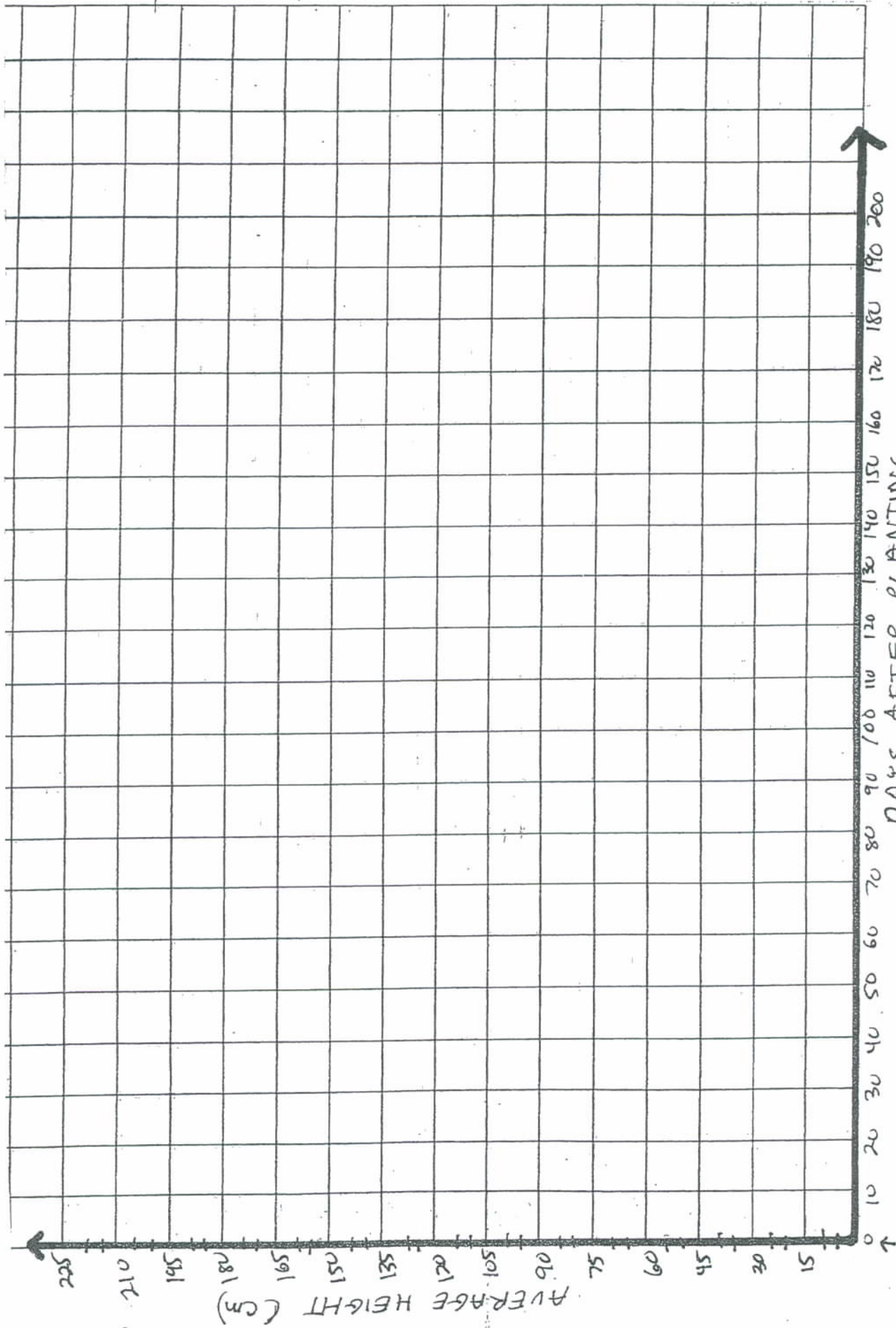
Date



sample
graph

NAME _____

GROWTH OF TALL SUGAR SNAP PEA PLANTS 2008-2009



DAYS AFTER PLANTING

10/22/08