

Name: \_\_\_\_\_  
One

Kruczek: Math 211 POW

Due: Friday, 10/10

### FORMAT

- Write neatly and clearly on white paper (lined or unlined)
- Attach a POW cover sheet to the front of your work for turn in

✓ Before starting your problem solving process, refer to your POW directions

1. Use Polya's four steps ONE TIME and answer the following three problems:

a. The Problem Opener for Section 1.3, page 37 in your text.

b. Extension One for the Problem Opener for Section 1.3:

Solve the original problem with the following change. Replace the  $\frac{3}{4}$  brick by a  $\frac{1}{3}$  brick; assume there is still a whole brick on one side and on the other side there is now  $\frac{1}{3}$  of a brick and a  $\frac{3}{4}$  pound weight. The scale is balanced.

c. Extension Two for the Problem Opener for Section 1.3:

Solve the original problem with the following change. Replace the  $\frac{3}{4}$  pound weight by a  $1\frac{3}{4}$  pound weight; assume there is still a whole brick on one side and on the other side there is now  $\frac{3}{4}$  of a brick and a  $1\frac{3}{4}$  pound weight. The scale is balanced.

As you work, explain the problems without formal algebra and explain the problems with formal algebra. You may weave these two complimentary ideas into the four steps as you like.