

NAME: \_\_\_\_\_

*P.I. A.N.5: Solve algebraic problems arising from situations that involve proportionality/direct variation*

1. Mr. Tanner ordered some items from a catalog. The shipping fee is \$0.80 per pound.

The first item weighs  $2\frac{1}{3}$  lb, the second item

weighs  $4\frac{3}{12}$  lb, and the third item weighs

$3\frac{4}{5}$  lb. Estimate the total fee Mr. Tanner will pay for shipping.

2. You are cutting vegetables for a stew. You have  $\frac{7}{8}$  cup carrots,  $\frac{1}{3}$  cup onions, and  $\frac{1}{2}$  cup peppers. About how many cups of vegetables do you have in all?

3. Susan's grandmother is knitting a blanket. She works on it each night after dinner. The chart below shows the number of inches she added to the blanket each night. About how many inches did she add to the blanket over the weekend?

| Mon            | Tues           | Wed            | Thurs          | Fri            | Sat            | Sun            |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| $1\frac{3}{5}$ | $1\frac{4}{6}$ | $1\frac{3}{4}$ | $2\frac{1}{4}$ | $1\frac{1}{8}$ | $2\frac{7}{9}$ | $3\frac{2}{3}$ |

[A] 5      [B] 7      [C] 1      [D] 6

4. Uyen is mixing and bagging nuts, sesame seeds, and raisins for 24 children at the summer camp to take on a hike. She used  $2\frac{3}{8}$  lb of cashews,  $1\frac{1}{2}$  lb of walnuts,  $2\frac{1}{4}$  lb of roasted peanuts,  $1\frac{1}{8}$  lb of sesame seeds, and  $1\frac{3}{4}$  lb of raisins. How many ounces of mix can Uyen put in each bag so that each child has the same amount?

[A] 6      [B] 5      [C] 8      [D]  $\frac{3}{8}$

\$8. Students should round each weight to the nearest whole number, thus 2 lb, 4 lb, and 4 lb. Next they must add the rounded weights, 10 lb, and multiply the total number of pounds by the price per pound. Thus

[1]  $10 \text{ lb} \times \$0.80 / \text{lb} = \$8.$  \_\_\_\_\_

[2] about 2 cups \_\_\_\_\_

[3] B \_\_\_\_\_

[4] A \_\_\_\_\_