$\qquad$

## SHOW ALL WORK to receive full credit.

Complete the following Diamond Problems. (4 points each)
1.

2.

3.

4.

5.

6.

7.

8.

9.

10.


## Use the attached scales to solve the following Magician Problems. (5 points each)

11. On the left side of the scale the magician places 2 bags, each containing 6 cups and 4 coins. On the right side he places 4 bags, each containing 2 cups and 5 coins. How many coins are in each cup?


Answer: 1 cup = $\qquad$ coins
12. The magician places 6 bags, each containing 1 cup and 1 coin on the left side of the scale. On the right side of the scale he places 2 bags, each containing 2 cups and 10 coins. How many coins are in each cup?


Answer: 1 cup = $\qquad$ coins
$\qquad$

## SHOW ALL WORK to receive full credit.

Complete the following Diamond Problems. (4 points each)
1.

2.

3.

4.

5.

6.

7.

8.

9.

10. Mental Percents: Complete the following table.
(1 point for each column - 6 points for the table.)

| $\#$ | $100 \%$ | $50 \%$ | $25 \%$ | $10 \%$ | $5 \%$ | $1 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 200 |  |  |  |  |  |  |
| 60 |  |  |  |  |  |  |

## Use the scales to solve the following Magician Problems. (4 points each)

11. On the left side of the scale, the magician placed four bags each with one cup and two coins along with two more coins. On the right side of the scale he placed two bags each with four cups and one coin. How many coins were in each cup?


Answer: 1 cup = $\qquad$ coins
12. On the left side of the scale, the magician placed two bags each with three cups and four coins along with two cups and five coins. On the right side of scale he placed three bags each with three cups and one coin along with one more cup. How many coins were in each cup?


Answer: 1 cup = $\qquad$ coins

## SHOW ALL WORK to receive full credit.

Complete the following Diamond Problems. (4 points each)
1.

2.

3.

4.

5.

6.

7. Mental Percents: Complete the following table.
(1 point for each column - 6 points for the table.)

| $\#$ | $100 \%$ | $50 \%$ | $25 \%$ | $10 \%$ | $5 \%$ | $1 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 500 |  |  |  |  |  |  |
| 46 |  |  |  |  |  |  |

Answer the following questions using the chart above. (4 points each)
8. What is $75 \%$ of 500 ? $\qquad$
9. What is $15 \%$ of 46 ? $\qquad$
10. What is $60 \%$ of 500 ? $\qquad$

Use the scales to solve the following Magician Problems. (4 points each)
11. On the left side of the scale, the magician placed two bags each with three cups and two coins. On the right side of the scale he placed three bags each with one cup and six coins along with one more coin. How many coins were in each cup?


Answer: 1 cup = $\qquad$ coins
12. On the left side of the scale, the magician placed three bags each with two cups and one coin along with one cup and two coins. On the right side of scale he placed three bags each with one cup and four coins along with one more coin. How many coins were in each cup?


Answer: 1 cup = $\qquad$ coins

