

UNIT 4 – DAY 14 QUICK NOTES

APPLICATIONS OF WRITING EQUATIONS IN STANDARD FORM

1. Keri has \$19.95 in quarters and dimes after a bake sale for Peer Buddies. Write an equation in standard form to model the number of quarters and dimes that Keri has collected. Define your variables.

$x = \text{quarters}$
 $y = \text{dimes}$

$$.25x + .10y = 19.95$$

If Keri has 27 quarters, how many dimes does she have?

$$.25(27) + .10y = 19.95$$

$$.10y = 13.2$$

$$y = 132 \text{ dimes}$$



2. The Chicago Bulls scored a total of 80 points in a basketball game against the Pacers. Write an equation in standard form to model the number of 3-pointers compared to two-point baskets in the game. Define your variables.

$x = \text{2-point}$
 $y = \text{3-point}$

$$2x + 3y = 80$$

If the Bulls scored six 3-pointers, how many two-point baskets must they have made?

$$2x + 3(6) = 80$$

$$2x = 62$$

$$x = 31 \text{ 2-pt baskets}$$

