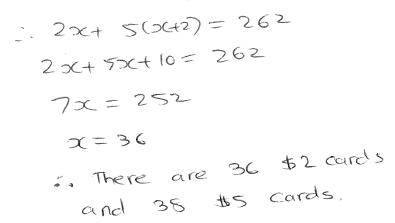
4.4: Money Problems

Ex. 1) Frank collects baseball cards. He has two more \$5 cards than \$2 cards, and their total value is \$262. How many of each does he have?

 Number of \$2 cards	Number of\$5 cards	Value of \$2 cards	Value of \$5 cards	Total Value
x	x+2	$2(\mathbf{x})$	5(x+2)	262



Ex. 2) Jim's piggybank contains nickels and dimes. There are fifteen more nickels than dimes for a total of \$14.55. Find the number of nickels and dimes.

	Number of nickels	Number of dimes	Value of nickels	Value of dimes	Total Value				
2	XHS	2	0.05 (2415)	61(2)	14.55				
	0.05 (x + 15) + 0.1x = 14.55 0.05 x + 0.75 + 0.1x = 14.55								
	0.15x = 13.8								
	x=92 : Jim's Piggybank has 92 dimes								
	and 107 nickels.								

Ex. 3) A parking meter contains \$27.05 in quarters and dimes. There are 146 coins. How many quarters are there?

Number of quarters	Number of dimes	Value of quarters	Value of dimes	Total Value
Z	146-2	0.25x	0.1(146-x)	\$27.05

0.1(146-x) + 0.25x = 27.05
14.6-0.1x+0.25x = 27.05
0.15x = 12.45

$$x = 83$$

The parting meter had 83 quarks and
63 dimes.

Extra Practice: Sit with your leader and complete the problems below.

1. Jeff has \$35.70 made up of loonies and dimes. If he has five times as many loonies as dimes, how many dimes does he have? Let ∞ represent the of dimes

$$\therefore 5x \text{ represents number of bonies}$$

$$\therefore (5x)(1) + x (0,1) = 35.70$$

$$5x + 0.106 = 35.70$$

$$5.1x = 35.70$$

$$x = 7$$

$$\therefore \text{ Jeff has 7 dimes and 35 Loonies.}$$

2. Jacob has \$21.90 made up of dimes and quarters. If there are 117 coins in all, how many quarters are there? Let a represent to f dimes

$$0.1x + 0.25(117-x) = 21.90$$

 $0.1x + 29.25 - 0.25x = 21.90$
 $-0.15x = -7.35$
 $x = 49$
 $3acob had 49$ dimes and 68 quarters.

3. Heather has \$300 made up of \$5 and \$10 bills. If there are 3 more \$10 bills than \$5 bills, how many \$5 bills does she have?

Let
$$x$$
 represent that the bills
 $x + 3$ represents that of the bills.
 $5x + 10(x + 3) = 300$
 $5x + 10x + 30 = 300$
 $15x = 270$
 $x = 18$
(Heather has) 18 the bills
 $x = 18$ bills
 $x = 18$ bills.
 $x = 18$ bills.