

Homework: Coin Word Problems



Name: _____

Alg. 1 H - Date: Oct. 10

Glue this foldable on page 5254

Show all work on pages 53 - 55.

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1. Gavin deposited \$170 in his bank. The number of \$5 bills was 3 times the number of \$10 bills, and the number of \$1 bills was 30 more than the number of \$5 bills. How many bills of each type did he have?

let

Type of bill	Value of each bill	# of bills	Total value
\$1	1	$3x+30 = 3x+30$	
\$5	5	$3x = 5(3x)$	
\$10	10	$x = 10x$	

Equation: $3x+30+5(3x)+10x=170$

2. Summer bought 1-cent stamps, 33 cent stamps, and 34-cent stamps for \$22.45. The number of 1-cent stamps exceeded the number of 34-cent stamps by 50. The number of 33-cent stamps was 10 less than twice the number of 34-cent stamps. How many of each kind did she buy?

let

Type of stamps	Value of each stamp	# of stamps	Total value
1 cent	1	$x+50 = x+50$	
33 cent	33	$2x-10 = 33(2x-10)$	
34 cent	34	$x = 34x$	

Equation: $x+50+33(2x-10)+34x=2245$

3. Seth has nickels, dimes and quarters. He has a total of \$17.65. He has eleven fewer quarters than nickels and six times as many dimes as quarters. How many of each coin does he have?

Type of coin	Value of each coin in cents	# of Coins	Total value in cents
Nickels	5	x	$= 5x$
Dimes	10	$6(x-11)$	$= 10(6x-66)$
Quarters	25	$x-11$	$= 25(x-11)$

Equation: $5x + 10(6x-66) + 25(x-11) = 1765$

4. Sophia has pennies, dimes and quarters. She has a total of \$17.64. She has two times as many quarters as dimes and one-third as many dimes as pennies. How many of each coin does she have?

Type of coin	Value of each coin in cents	# of Coins	Total value in cents
Pennies	1	x	$= 1x$
Dimes	10	$\frac{1}{3}x$	$= 10(\frac{1}{3}x)$
Quarters	25	$2(\frac{1}{3}x)$	$= 25(\frac{2}{3}x) = \frac{50}{3}x$

Equation: $x + \frac{10}{3}x + \frac{50}{3}x = 1764$

5. Abby's purse contains \$1.35 in nickels and dimes. In all there are 15 coins. How many of each kind are there?

Type of coin	Value of each coin in cents	# of Coins	Total value in cents
Nickels	5	x	$= 5x$
Dimes	10	$15-x$	$= 10(15-x)$

Equation: $5x + 10(15-x) = 135$

6. A collection of 32 coins, consisting of dimes and quarters, has a value of \$4.70. How many coins of each kind are there?

Type of coin	Value of each coin in cents	# of Coins	Total value in cents
Dimes	10	x	$= 10x$
Quarters	25	$32-x$	$= 25(32-x)$

Equation: $10x + 25(32-x) = 470$

7. Olivia has five-dollar bills and ten-dollar bills in her wallet. The total amount in her wallet is \$85. All together, there are 13 bills in her wallet. How many of each bill does she have?

Type of bill	Value of each bill	# of bills	total
\$5	5	x	$= 5x$
\$10	10	$13-x$	$= 10(13-x)$

Equation: $5x + 10(13-x) = 85$

8. A jar has \$11 in it. The jar consists of nickels, dimes and quarters. There are twice as many dimes as nickels, and 30 more than quarters than nickels. How many of each coin are in the machine.

Type of coins	Value of each coin in cents	# of coins	Total value in cents
Nickels	5	x	$= 5x$
Dimes	10	$2x$	$= 10(2x)$
Quarters	25	$x+30$	$= 25(x+30)$

Equation: $5x + 10(2x) + 25(x+30) = 1100$