WP-8 Notes

Thursday, 5 November 2026 07:54

1) Adult tickets for the school play cost $5 each and student tickets cost $3 each. A total of 150 tickets worth $570 were sold. How many student tickets were sold?

Let x = # adult tickets
150 − x = # students

tickets × cost/ticket = total $

	# tickets	cost/ticket	total $
adult	x	5	5x
student	150 − x	3	3(150 − x)

570

150 − 60 = 90 student tickets

$(5x) + 3(150-x) = 570$

$5x + 450 - 3x = 570$

$2x + 450 = 570$

$-450 \quad -450$

$\frac{2x}{2} = \frac{120}{2}$

$x = 60$

2) I have eight more quarters than dimes. If the total value of the coins is $6.20, how many dimes are there?

X = dimes
X + 8 = quarters

amount × value = total

	amount	value	total
dimes	X	10¢ 0.10	0.10x
quarters	X + 8	25¢ 0.25	0.25x + 2

0.25(x + 8)

add totals

$0.10x + 0.25x + 2 = 6.20$

$0.35x + 2 = 6.20$

$-2 \quad -2$

$\frac{0.35x}{0.35} = \frac{4.20}{0.35}$

$x = 12$

12 dimes
20 quarters