

Name _____

Secret Santa's Math Challenge! Answer Key

1) Budget Trouble

a) Total planned = $8 \times \$15 = \120 .

b) 20% more $\Rightarrow \$15 \times 1.20 = \18 each $\rightarrow 8 \times \$18 = \144 .

(Or $\$120 \times 1.20 = \144 .)

2) Cookie Division

a) Boxes = $72 \div 12 = 6$ boxes.

b) Revenue = $6 \times \$4.50 = \27.00 .

3) Wrapping Paper Rolls

One roll: $2.5 \text{ m} \div 0.75 \text{ m} \approx 3.33 \rightarrow 3$ full presents per roll.

b) With 4 rolls: $4 \times 3 = 12$ presents.

Note: We're not combining leftover scraps from different rolls.

4) Gift Discount

25% off \$18 $\rightarrow \$18 \times 0.75 = \13.50 .

Then coupon \$2 off: $\$13.50 - \$2.00 = \$11.50$ (before tax).

5) Stocking Ratio

Candy canes : coins = 3 : 5.

If coins = 60 $\rightarrow 5$ parts = 60 $\Rightarrow 1$ part = 12.

Candy canes = 3 parts = $3 \times 12 = 36$ candy canes.

6) Classroom Exchange

a) Total = $24 \times \$7.25 = 24 \times 7 + 24 \times 0.25 = 168 + 6 = \174.00 .

b) Toys are $\frac{1}{3}$ of gifts \Rightarrow money on toys = $(\frac{1}{3}) \times \$174 = \58.00 .

7) Hot Chocolate Fundraiser

Revenue = $85 \times \$1.50 = \127.50 .

Profit = Revenue - Costs = $\$127.50 - \$42.00 = \$85.50$.

8) Holiday Lights

18 ft = $18 \times 12 = 216$ inches.

Lights every 6 inches $\Rightarrow 216 \div 6 = 36$ lights.

(Assuming one light every 6 inches along the strand.)