

Math Challenge #2

SOLUTIONS

1. Mr. Smith has 2 coins that add up to 30 cents. What are the coins?
Answer:
A quarter & a nickel
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2. Mr. Livingston has four coins that add up to 80 cents. What are the coins?
Answer:
3 quarters & a nickel or a fifty cent coin and 3 dimes
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3. Ryan would like to buy a lollypop. It cost 65 cents. He gave the store keeper three quarters. How much change will he get?
Answer:
 $75 \text{ cent} - 65 \text{ cents} = 10 \text{ cents}$
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4. Sarah has six coins. She has quarters, dimes, and a penny. She has more quarters than pennies. She has more dimes than quarters. What coins does Sarah have, and how much money does she have altogether?
Answer:
2 quarters, 3 dimes, and a penny = 81 cents
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5. Christopher has four coins that total 70¢. His coin of highest value is a half dollar. Olivia has four coins that total 70¢. Her coin of highest value is a quarter. What coins do each one have?
Answer:
Christopher: 1 half dollar, 1 dime, and 2 nickels. Olivia: 2 quarters and 2 dimes.
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6. There are three bills and three coins in Mr. Wong's pocket. They add up to \$4.25. What bills and coins are in Mr. Wong's pocket?
Answer: three \$1 bills, two-50¢ coins, and a quarter.
Or two \$1 bills, one \$2 bill, two dimes and a nickel.
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7. Steve was offered a job at the nearby golf course. The owner offered him \$500.00 per seven day week or \$5 for the first day and agreed to double it for each following day. Which offer would make Steve the most amount of money in a week?
Answer:
Doubling it
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8. Suppose you found an old roll of 15¢ stamps. Can you use a combination of 44¢ and 15¢ stamps to mail a package for exactly \$2.22? If yes, provide the combination.
Answer:
6 of the 15 cents stamps, and 3 of the 44 cents stamps.
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9. Elizabeth headed to the mall with \$60.00. If she spends $\frac{1}{4}$ of her money on clothes, \$30.00 on CD's, and 10% of her original money pigging out at the food court, how much cash will she have left? Elizabeth spent \$15 on clothes ($\frac{1}{4}$ of \$60 = \$15), \$30 on CD's, and \$6 on food (10% of \$60 = \$6). Add this together, and she spent a total of 51 dollars at the mall. Subtract this from her original 60, and she is left with \$9.
Answer:
She will have nine dollars left.
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10. If I give a third of my money to charity and a quarter of what's left to you, I am left with \$45.00. How much did I originally have?
Answer:
\$90
If you divide 45 by 3 you get 15 which is a quarter of what was left after I gave some to charity. Add these and you get 60, so 60 is how much I had after I gave some to you. 60 is $\frac{2}{3}$ of my original amount. 60 divided by $\frac{2}{3}$ = 90. So \$90 is my original amount of money!
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11. I spent $\frac{2}{3}$ of my money in a store X. I then spent $\frac{1}{3}$ of what I have remained in store Y. When I left store Y, I had \$4. How much money did I have when I entered store X?
Answer:
\$18
One way to solve it: work backward.
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