

Type 1 (Killer Heuristic Question)

Kenji bought three times as many badges as toy cars and spent \$144 in total. He spent \$84 more on toy cars than on badges. Given that a toy car cost \$10.40 more than a badge, what was the cost of a badge?

Type 2 (Killer Heuristic Question)

Donna had some candies. She kept half of the number of candies plus 3 candies. She gave the remaining candies to Jane. Jane ate $\frac{1}{3}$ of the candies plus 4 candies. Then Jane gave the remaining candies to Kate. Kate ate $\frac{1}{4}$ of the candies and had 42 candies left. How many candies did Donna have at first?

Type 3 (Killer Heuristic Question)

Mary had \$72 in her piggy bank. The coins were in a mixture of 10-cent, 20-cent and 50-cent. There were twice as many 20-cent as 50-cent coins and three times as many 10-cent coins as 50-cent coins.

- (a) How many 20-cent coins were there in the piggy bank?
- (b) Mary decided to exchange all 10-cent and 20-cent coins for 50-cent coins. How many 50-cent coins would she have after the exchange?

Type 4 (Killer Heuristic Question)

Audrey and Belle have some money each. If Audrey spends \$18 and Belle spends \$24 each day, Audrey will still have \$25 left when Belle has spent all her money. If Audrey spends \$13 and Belle spends \$30 each day, Audrey will still have \$139 left when Belle has spent all her money. How much money do they have altogether?