

No More Pennies!

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SSEA 2022

To save money (it is more expensive to make a penny than it is worth) the US Mint decides to only mint two cent and five cent coins.

1. What if any amounts can no longer be paid because of this change in coinage?
2. What if they decided to go with 3 cent and 5 cent coins?
3. What if they decided to go with 2 cent and 4 cent coins?
4. Try some other pairs of coins of your choosing. Do you notice any patterns? Can you make any general statements about what amounts can be paid?
5. What happens if they decide to mint only 6 cent, 10 cent and 15 cent coins?
6. How might this problem be connected to the magic carpet problems?
7. What happens if you can pay somebody and receive change?