1. A prince has a 5 × 8 foot flying carpet. While visiting the Kingdom of Samhop he was attacked by a fire breathing dragon. A strip of his carpet was burned away as seen in the figure below.

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The magic carpet only flies well when it has rectangular shape, so he enlists the help of a princess. She cuts the carpet into 3 rectangular strips and sews them back together to form a 6 × 6 carpet. How did she cut the magic carpet?

1. A certain pet shop sells large birds and small birds; each large bird fetches twice the price of a small one. A lady came in and purchased five large birds and three small ones. If, instead, she had bought three large birds and five small birds, she would have spent $20 less. What is the price of each bird?

