Estimating transactions

6 questions | 11 marks

Equivalent correct methods earn the corresponding marks.

1. Round a price of 63 dollars to the nearest ten dollars. [1 mark]

63 is closer to 60 than 70.

Answer: 60 dollars

2. Estimate the total of 29 and 42 dollars, rounding each to the nearest ten. [2 marks]

29 rounds to 30; 42 rounds to 40.

30 + 40 = 70 dollars.

Answer: 70 dollars

3. Calculate the exact total of 29 and 42 dollars. Compare it with your estimate. [2 marks]

29 + 42 = 71.

71 − 70 = 1.

Answer: 71 dollars; 1 dollar above the 70-dollar estimate.

4. A learner writes 54 + 18 = 172 dollars. Use an estimate to explain why this cannot be right. [2 marks]

50 + 20 = 70 is a useful estimate.

54 + 18 = 72, not 172.

Answer: The total should be near 70 dollars; the exact answer is 72 dollars.

5. You have 40 dollars. Two items cost 19 and 22 dollars. Does the estimate 20 + 20 settle whether you can pay? Check exactly. [2 marks]

The estimate is 40 but rounding hid 1 dollar.

19 + 22 = 41.

Answer: No; the exact total is 41 dollars, so you are 1 dollar short.

6. A bag costs 68 dollars. Estimate the change from 100 dollars to the nearest ten, then find the exact change. [2 marks]

68 rounds to 70; 100 − 70 = 30.

100 − 68 = 32.

Answer: Estimated change 30 dollars; exact change 32 dollars.