Error of Estimation

Let's estimate **8 × 78.** 78 ≈ 80 and 7 × 80 = 560. The exact calculation gives us 8 × 78 = 544. The difference between these two results is 560 − 544 = 16. That is the error of estimation.	Let's estimate **6 × $4.35.** $4.35 ≈ 4.50 and 6 × 4.50 = $27. The exact calculation gives us 6 × $4.35 = $26.10. The difference between these two results is $27 − $26.10 = $0.90. That is the error of estimation.
The **error of estimation** is the *difference* between the estimated result and the exact result. The error tells you how much "off" you were.	

1. First estimate the products, then calculate the exact result, and then find the error of estimation.

a. Estimation: 4 × 91 ≈ 4 × 90 = 360 Error of estimation 4 Exact: 91 × 4 364	**b.** Estimation: 5 × 67 ≈ Error of estimation _____ Exact: 67 × 5
c. Estimation: 6 × 34 ≈ Error of estimation _____ Exact: 34 × 6	**d.** Estimation: 7 × 59 ≈ Error of estimation _____ Exact: 59 × 7
e. Estimation: 9 × 68 ≈ Error of estimation _____ Exact: 68 × 9	**f.** Estimation: 9 × 113 ≈ Error of estimation _____ Exact: 113 × 9
g. Estimation: 8 × 242 ≈ Error of estimation _____ Exact: 242 × 8	**h.** Estimation: 5 × 693 ≈ Error of estimation _____ Exact: 693 × 5