

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Round the factors to estimate the products.

a.  $697 \times 82 \approx \underline{700} \times \underline{80} = \underline{56,000}$

A reasonable estimate for  $697 \times 82$  is 56,000.

b.  $5,897 \times 67 \approx \underline{6,000} \times \underline{70} = \underline{420,000}$

A reasonable estimate for  $5,897 \times 67$  is 420,000.

c.  $8,840 \times 45 \approx \underline{9,000} \times \underline{50} = \underline{450,000}$

A reasonable estimate for  $8,840 \times 45$  is 450,000.

2. Complete the table using your understanding of place value and knowledge of rounding to estimate the product.

Factors	Rounded Factors	Estimate
a. $3,409 \times 73$	$3,000 \times 70$	210,000
b. $82,290 \times 240$	$80,000 \times 200$	16,000,000
c. $9,832 \times 39$	$10,000 \times 40$	400,000
d. 98 tens $\times$ 36 tens	$1000 \times 400$	400,000
e. 893 hundreds $\times$ 85 tens	$90,000 \times 900$	81,000,000

3. The estimated answer to a multiplication problem is 800,000. Which of the following expressions could result in this answer? Explain how you know.

$8,146 \times 12$	$81,467 \times 121$	$8,146 \times 121$	$81,477 \times 1,217$
$8000 \times 10$	$80,000 \times 100$	$8,000 \times 100$	$80000 \times 1000$
$80,000$	$8,000,000$	$800,000$	$80,000,000$

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4. Fill in the blank with the missing estimate.

a.  $751 \times 34 \approx \underline{8000} \times \underline{30} = 24,000$

b.  $627 \times 674 \approx \underline{600} \times \underline{700} = 420,000$

c.  $7,939 \times 541 \approx \underline{8000} \times \underline{500} = 4,000,000$

5. In a single season the New York Yankees sell an average of 42,362 tickets for each of their 81 home games. About how many tickets do they sell for an entire season of home games?

$42,362 \times 81 \approx 40,000 \times 80 = 3,200,000$

6. Raphael wants to buy a new car.

a. He needs a down payment of \$3,000. If he saves \$340 each month, about how many months will it take him to save the down payment?

$340 \times \underline{\quad} = 3,000$

$300 \times \underline{10} = 3000$

About 10 months

b. His new car payment will be \$288 each month for five years. What is the total of these payments?

$288 \times 12 \times 5$

$300 \times 10 \times 5 = 300 \times 50 = 15000$

About \$15,000