Name _____

Practice Video Tools Games

Additional Practice 3-2
Estimate Products

Another Look!

DATA

Supplies	
Electronic thermometers	$19 each
Pulse monitors	$189 each
Pillows	$17 each
Telephones	$19 each

Use rounding to estimate.

Estimate 14×189.

You can round 14 to 10 and 189 to 200.

$10 \times 200 = 2{,}000$

Use compatible numbers to estimate.

Estimate 14×189.

Replace 14 with 15 and 189 with 200.

$15 \times 200 = 3{,}000$

The 14 pulse monitors will cost between $2,000 and $3,000.

1. About how much would it cost to buy 18 MP3 players? About how much would it cost to buy 18 CD/MP3 players?
Sample answers: $2,000; $3,600

DATA

Electronics Prices	
CD player	$74.00
MP3 player	$99.00
CD/MP3 player	$199.00
AM/FM radio	$29.00

In **2–15**, estimate each product. **Sample answers are given.**

2. 184×210
Round 184 to 200.
Round 210 to 200.
Multiply 200 × 200 = 40,000.

3. 77×412
Round 77 to 80.
Round 412 to 400.
Multiply 80 × 400 = 32,000.

4. 87×403 36,000

5. 19×718 14,000

6. 888×300 270,000

7. 352×20 7,000

8. 520×797 400,000

9. 189×46 10,000

10. 560×396 240,000

11. 498×47 25,000

12. 492×22 10,000

13. 928×89 81,000

14. 308×18 6,000

15. 936×410 360,000

16. Laura's family is going on a vacation. They will drive 4,180 miles over the next two weeks. About how many miles will they drive on average each week?

Sample answer: 2,000 miles per week

17. Make Sense and Persevere A bus service drives passengers between Milwaukee and Chicago every day. They travel from city to city 8 times each day. The distance between the two cities is 89 miles. In February, there are 28 days. The company's budget allows for 28,000 total miles for February. Do you think the budget is reasonable? Explain. **Yes.**

$28 \times 10 \times 100 = 280 \times 100 = 28{,}000$
Because this is an overestimate, there are enough miles.

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18. Higher Order Thinking Explain whether rounding or compatible numbers gives a closer estimate for the product below.

$48 \times 123 = 5{,}904$

Sample answer: They are the same. $50 \times 120 = 6{,}000$ is the estimate that results from rounding to the nearest 10 and using compatible numbers.

19. A case of 24 pairs of the same kind of sports shoes costs a little more than $800. Explain whether $28 per pair with tax included is a good estimate of the price.

No; Sample explanation: Use compatible numbers: $25 \times 30 = 750$. Since this is an overestimate, $28 is too low.

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20. The number of Adult tickets is the same as the number of Child (age 5–12) tickets. A total of 38 tickets was purchased. What is the total cost of the tickets? Explain.

Sample answer: $760; $23 + $17 = $40; There are 19 of each kind of ticket sold, so you can just multiply 19 × $40 = $760.

DATA

Ticket	Price (in $)
Adult	23
Child, age 5–12	17
Under 5	8

Assessment Practice

21. Which does **NOT** show a reasonable estimate of 360×439?

- **(A)** 100,000
- (B) 140,000
- (C) 160,000
- (D) 180,000

22. A club orders 124 T-shirts at a cost of $18 each. Which is the best estimate of the total cost of the order?

- (A) $1,000
- **(B)** $2,000
- (C) $3,000
- (D) $4,000