

Name _____

1. A large envelope is 0.085 cm thick. How thick would a stack of 100 of these envelopes be? Explain. **2 points**

8.5 cm; Sample answer: I moved the decimal point in 0.085 two places to the right.

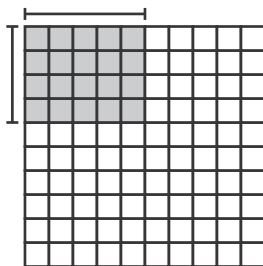
2. Every school day, Dylan rides the school bus 4.79 miles round trip between home and school.
- A. Estimate the total distance Dylan rode the school bus last month, when there were 21 school days. Write an equation to model your work. **2 points**

Sample answer: 100 miles; $20 \times 5 = 100$

- B. Find the actual total distance Dylan rode the bus last month. **1 point**

100.59 miles

3. Caden colored in the decimal grid shown below. Write an expression that shows the area he colored. Then evaluate the expression. **2 points**



0.4×0.5 ; 0.2

4. Choose the correct product for each expression. **1 point**

	30	0.3	0.03	3
6×0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
0.6×0.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60×0.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0.06×0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

5. Ava bought 5.8 pounds of tomatoes. Tomatoes cost \$1.30 per pound. How much did Ava spend in all? **1 point**

\$7.54

6. Select all the expressions that are equal to 0.48×0.3 . **1 point**

- $\frac{48}{100} \times \frac{3}{100}$
- $\frac{3}{10} \times \frac{48}{100}$
- $\frac{48}{100} \times \frac{30}{100}$
- $\frac{3}{100} \times \frac{48}{100}$
- $\frac{48}{100} \times \frac{3}{10}$

7. Select each equation that the number 10^3 makes true. **1 point**

- $0.79 \times \square = 790$
- $6.3 \times \square = 6,300$
- $0.023 \times \square = 23$
- $14.5 \times \square = 1,450$
- $0.55 \times \square = 55$

8. Jonathan is shopping for a frame for a square painting. Each side measures 9.5 inches.



- A. What is the perimeter of the painting? Write an equation to model your work. **2 points**

38 inches; $4 \times 9.5 = 38$

- B. What is the area of the painting? Write an equation to model your work. **2 points**

**90.25 square inches;
 $9.5 \times 9.5 = 90.25$**

9. Choose the correct product for each expression. **1 point**

	7.02	70.2	702	7,020
7.02×10^2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
0.702×10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0.702×10^2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0.702×10^4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

10. Select all the expressions that are equal to 0.8×0.07 . **1 point**

- $\frac{8}{10} \times \frac{7}{100}$ $\frac{7}{100} \times \frac{80}{100}$
 $\frac{80}{100} \times \frac{7}{10}$ $\frac{7}{100} \times \frac{8}{100}$
 $\frac{8}{10} \times \frac{7}{10}$

11. A bowling alley charges \$185 per hour for parties. How much would a 2.5-hour party cost? Write an equation to model your work. **2 points**

**\$462.50;
 $185 \times 2.5 = 462.50$**

12. Kaitlyn is planning a trip to Canada. Her cell phone plan includes a roaming charge of \$0.48 per minute.

- A. On her first day in Canada, Kaitlyn calls her parents and talks for 10 minutes. What is the cost of this call? Explain. **2 points**

\$4.80; Sample answer: I moved the decimal point in 0.48 one place to the right.

- B. During her trip, Kaitlyn's calls to the United States total 100 minutes. What will be the total cost for these calls? Explain. **2 points**

\$48; Sample answer: I moved the decimal point in 0.48 two places to the right.

13. Without doing the multiplication, choose the correct product for each expression. Use number sense to help you. **1 point**

	26.52	0.948	21.456	38.512
6.32×0.15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.45×2.88	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.16×3.25	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.28×4.15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

14. One inch equals 2.54 centimeters. How many centimeters is 10 inches? Explain. **2 points**

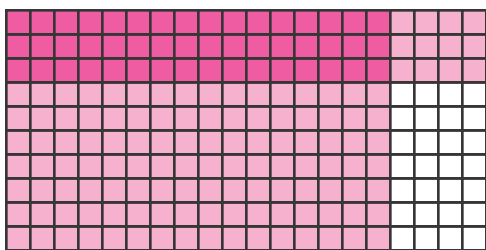
25.4 cm; Sample answer: I moved the decimal point in 2.54 one place to the right.

15. Select each equation that the decimal 0.29 makes true. **1 point**

- $10^2 \times \square = 29$
 $10^0 \times \square = 0.29$
 $10^2 \times \square = 290$
 $10^4 \times \square = 2,900$
 $10^1 \times \square = 29$

16. A forest preserve has an area of 1.6 square miles, and 0.3 of the forest preserve is open for hiking.

- A. Shade the grid to model the multiplication. **1 point**



- B. How many square miles are open for hiking? Use an equation and the model to explain. **3 points**

**0.48 square miles;
 $1.63 \times 0.3 = 0.48$;
Sample answer:
48 squares are shaded.
Each represents 0.01,
so the product is 0.48.**

17. Every day, Isabella practices the piano for 0.75 hour and the flute for 1.4 hours. What is the total number of hours that she practiced in April? Reminder: April has 30 days. **1 point**

**64.5 hours; $0.75 + 1.4$
 $= 2.15$; $2.15 \times 30 = 64.5$**

18. A small business plans to order carpet for 4 identical offices. The floor of each office is 7.2 feet long and 5.8 feet wide.

- A. Round the length and width to the nearest whole number. Then estimate the total amount of carpet that is needed. Write equations to model your work. **2 points**

**168 square feet; 7×6
 $= 42$, $42 \times 4 = 168$**

- B. Find the exact total area. Write equations to model your work. **2 points**

**167.04 square feet;
 $7.2 \times 5.8 = 41.76$
 $41.76 \times 4 = 167.04$**

- C. Compare your estimate to the exact answer. Why is your answer reasonable? **1 point**

**168 is close to 167.04,
so my answer is
reasonable.**

19. Sara is buying party supplies.

Paddle Ball	\$0.89
Balloon	\$2.99
Banner	\$4.99

A. How much will 5 balloons cost?
Write an equation. **2 points**

\$14.95;
 $5 \times 2.99 = 14.95$

B. Sara wants to buy 15 paddle balls. She uses partial products to find her total. She says, "\$25.50 is much more than my estimate of $15 \times \$1 = \15 , so my estimate is too low." Do you agree? Explain. **2 points**

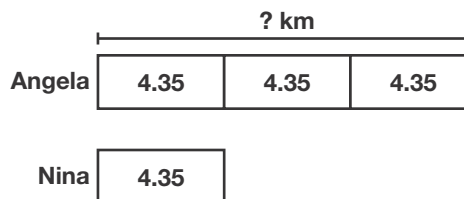
15 Paddle balls @ \$0.89 each
$10 \times 0.9 = 9$
$10 \times 0.8 = 8$
$5 \times 0.9 = 4.5$
$5 \times 0.8 = 4$
$\$9 + \$8 + \$4.50 + \$4 = \$25.50$

No; \$15 was an overestimate because she rounded \$0.89 to \$1. So, the actual amount must be less than \$15. Her partial products are not correct. The actual total is \$13.35.

20. The area of one floor tile is 92.16 square inches. What is the area of a kitchen floor covered with 10^2 floor tiles? Explain. **2 points**

9,216 square inches;
Sample answer:
I moved the decimal point in 92.16 two places to the right.

21. Nina hiked 4.35 kilometers. Her sister Angela hiked 3 times as far as Nina.



A. Which expression represents the problem? Use the bar diagram to help. **1 point**

- A 4.35×3
- B 4.35×1
- C $4.35 \div 3$
- D $4.35 \div 1$

B. How far did Angela hike? **1 point**

13.05 km