Name _____

Topic **4**
Assessment

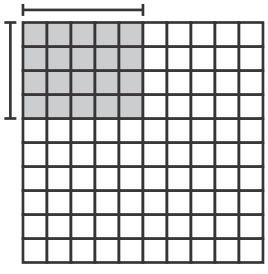
1. A large envelope is 0.085 cm thick. How thick would a stack of 100 of these envelopes be? Explain.

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.

B. Find the actual total distance Dylan rode the bus last month.

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



4. Choose the correct product for each expression.

	30	0.3	0.03	3
6×0.5	❒	❒	❒	❒
0.6×0.5	❒	❒	❒	❒
60×0.5	❒	❒	❒	❒
0.06×0.5	❒	❒	❒	❒

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

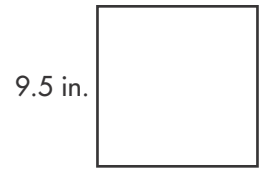
6. Select all the expressions that are equal to 0.48×0.3.

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

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

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

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.

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

---

9. Choose the correct product for each expression.

	7.02	70.2	702	7,020
7.02×10^2	❒	❒	❒	❒
0.702×10	❒	❒	❒	❒
0.702×10^2	❒	❒	❒	❒
0.702×10^4	❒	❒	❒	❒

---

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

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

---

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.

---

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.

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

---

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

	26.52	0.948	21.456	38.512
6.32×0.15	❒	❒	❒	❒
7.45×2.88	❒	❒	❒	❒
8.16×3.25	❒	❒	❒	❒
9.28×4.15	❒	❒	❒	❒

---

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

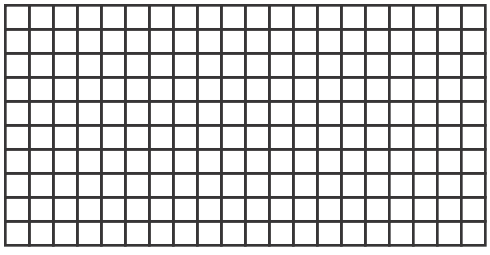
15. Select each equation that the decimal 0.29 makes true.

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

---

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.



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

---

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.

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.

B. Find the exact total area. Write equations to model your work.

C. Compare your estimate to the exact answer. Why is your answer reasonable?

19. Sara is buying party supplies.

Paddle Ball	$0.89
Balloon	$2.99
Banner	$4.99

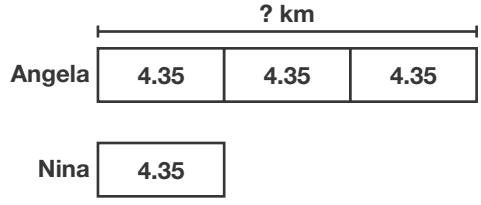
A. How much will 5 balloons cost? Write an equation.

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 × $1 = $15, so my estimate is too low." Do you agree? Explain.

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

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.

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.

Ⓐ 4.35 × 3

Ⓑ 4.35 × 1

Ⓒ 4.35 ÷ 3

Ⓓ 4.35 ÷ 1

B. How far did Angela hike?

