Name *Chp 4 Scoring Protocol*

1pt

1. Ganesh is making a scale model of the Space Needle in Seattle, Washington. The space needle is 605 feet tall. If the model is $\frac{1}{100}$ the actual size of the Space Needle, how tall is the model?

6.05 feet

4pts possible

2. For numbers 2a–2d, choose Yes or No to indicate whether the product is correct.

1pt for each correct answer

2a. $0.48 \times 10 = 4.8$ ● Yes   ○ No

2b. $0.76 \times 10 = 76$ ○ Yes   ● No

2c. $0.01 \times 100 = 0.1$ ○ Yes   ● No

2d. $0.50 \times 1,000 = 500$ ● Yes   ○ No

2pts

3. Madison is in charge of buying the hamburger meat for her company's annual picnic. She needs to buy enough meat to make 1,000 hamburgers. Each hamburger will weigh 0.25 pound. How many pounds of hamburger meat does Madison need to buy? Explain how to find the answer.
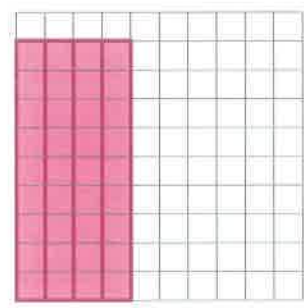
1pt for correct answer
1pt for correct explanation

250 pounds; Possible explanation: multiply 1,000 by 0.25 by moving the decimal point 3 places to the right.

2 points possible

4. Kara is shading this model to show 0.09×4. Shade the correct amount of boxes that will show the product.

Kara should shade **4** groups of **9** small squares or **36** small squares.

1 point for all 3 boxes correctly filled in

1 point for correct shading

GO ON

5. Rhianna is making a shelf to store her collection of rocks and shells. She is using 5 pieces of wood that are each 3.25 feet long. How much wood will Rhianna use to make the shelf?

_16.25_ feet

1pt

6. Which problems will have two decimal places in the product? Mark all that apply.

1pt

- ● 3 × 0.65
- Ⓒ 8.1 × 10
- ● 7.22 × 10⁰
- Ⓑ 4.8 × 2
- ● 6.1 × 7.3

7. Mari and Rob are making a poster for the science fair. They need to figure out how much a rock that weighs 7 pounds on Earth would weigh on Mars. They know that they can multiply the amount the rock weighs on Earth by 0.38 to find its weight on Mars. Circle the partial products Mari and Rob would need to add to find the product of 7 and 0.38. Mark all that apply.

1pt

- Ⓐ 0.7
- ● 0.56
- Ⓒ 2.66
- ● 2.1
- Ⓔ 0.38

8. Michael exchanged 1,000 U.S. dollars for the Croatian currency, which is called the Kuna. The exchange rate was 5.81 Kuna to $1.

4pts possible

Part A — 2pts

How many Croatian Kuna did Michael get? Explain how you know.

> **Michael received 5,810 Kuna; Possible explanation: for every $1 that Michael exchanges he will get 5.81 Kuna. So, I multiplied 1,000 × 5.81 = 5,810.**

*1pt for correct answer
1pt for correct explanation*

Part B — 2pts

Michael spent 4,976 Kuna on his trip. He exchanged the Kuna he had left for U.S. dollars. The exchange rate was 1 Kuna to $0.17. How many U.S. dollars did Michael get? Support your answer using specific information from the problem.

> **$141.78; Possible explanation: I subtracted 5,810 − 4,976 Kuna to find the number of Kuna left. If the exchange rate was 1 Kuna to $0.17, for every 1 Kuna Michael exchanged, he received $0.17. So, 834 × 0.17 = 141.78**

*1pt for correct answer
1pt for correct explanation*

GO ON

1pt

9. Paul works at a local grocery store. He worked 15 hours this week. Last week, he worked 2.5 times as many hours as he worked this week. How many hours did Paul work last week? Show your work.

$$\begin{array}{r} 15 \\ \times\ 2.5 \\ \hline 75 \\ +\ 300 \\ \hline 37.5 \end{array}$$

Paul worked 37.5 hours.

Check students' work.

1pt

10. Jeremiah always rides his bike to and from work. The total length of a trip to and from work is 14.6 kilometers. Last month, Jerimiah worked 18 days. How many kilometers did he ride his bike to and from work last month? Show your work.

$$\begin{array}{r} 14.6 \\ \times\ 18 \\ \hline 1{,}168 \\ +\ 1{,}460 \\ \hline 262.8 \end{array}$$

Jeremiah rode 262.8 kilometers.

Check students' work.

1pt

11. Write each number in a box next to the expression that has the same value. A number may be used more than once.

$$\boxed{9.45} \qquad \boxed{94.5} \qquad \boxed{945}$$

$27 \times 35 =$ **945**

$0.27 \times 35 =$ **9.45**

$27 \times 3.5 =$ **94.5**

$2.7 \times 35 =$ **94.5**

1 point for all 4 correctly entered

1pt

12. Mandy, Jeremy, and Lily went to an amusement park during their summer vacation. Mandy spent $16.25 at the amusement park. Jeremy spent $3.40 more than Mandy spent. Lily spent 2 times as much money as Jeremy spent. How much did Lily spend at the amusement park?

$ **39.30**

GO ON

5 pts possible

13. The cost of admission to the Flemington Aquarium is $11.50 for each senior citizen, $14.75 for each adult, and $7.25 for each child.

Part A —2pts

A family of 2 adults and 1 child plans to spend the day at the Flemington Aquarium. How much does admission for the family cost? Explain how you found your answer.

> **$36.75; Possible explanation: I will find the cost of the two adult tickets by multiplying 2 × $14.75 = $29.50. Then, I will add the cost of the child's ticket. $29.50 + $7.25 = $36.75**

1 pt for correct answer
1 pt for correct explanation

Part B — 1pt

Describe another way you could solve the problem.

> **Possible description: I could add the cost of the three tickets. $14.75 + $14.75 + $7.25 = $36.75**

Part C — 2pts

What if 2 more tickets for admission are purchased? If the two additional tickets cost $14.50, determine what type of tickets the family purchases. Explain how you can determine the answer without calculating.

> **Two additional children's tickets are purchased. Possible explanation: Since senior citizen tickets cost about $10 each, then 2 tickets would cost about $20, which is too much. Adult tickets cost about $15 each, so 2 adult tickets would cost about $30, which is too much. Children's tickets cost about $7, and 2 tickets would be about $14, which is correct.**

1 pt for correct answer
1 pt for correct explanation

14. At a dry cleaning store, it costs $1.79 to clean a man's dress shirt and 6 times as much to clean a suit. Choose the answer that correctly completes the statement.
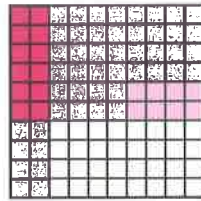
1 pt

It would cost

$8.95
$10.74
$12.53

to dry clean one shirt and one suit.

GO ON

15. Shade the model to show 0.2 × 0.6. Then find the product.

2 pts possible

) *1 point for correct shading*

0.2 × 0.6 = [**0.12**]) *1 point for correct answer*

16. Mr. O'Brien is paid $7.30 per hour for the first 40 hours he works in a week. He is paid 1.5 times that rate for each hour after that.

1pt

Last week, Mr. O'Brien worked 44 hours. He says he earned $321.20 last week. Do you agree? Support your answer.

> **I disagree. Possible explanation: the earnings for 40 hours are $7.30 × 40 = $292. $7.30 × 1.5 = $10.95, which is the rate for each hour over 40. $10.95 × 4 = $43.80. I added $43.80 + $292 = $335.80. $335.80 > $321.20.**

17. Explain how an estimate helps you to place the decimal point when multiplying 3.7 × 5.1.

1pt

> **Possible explanation: The estimate, 4 × 5 = 20, helps me know that the decimal point should be placed so that the answer is close to 20.**

18. During a track meet, Calvin drinks 0.6 liter of water. Melinda drinks 0.8 times as much water as Calvin during the track meet. How much water does Melinda drink during the track meet?

1pt

___**0.48**___ liter(s)

19. For numbers 19a–19d, select True or False for each statement.

4 pts possible

19a. The product of 1.3 and 2.1 is 2.73. ● True ○ False

19b. The product of 4.8 and 0.4 is 19.2. ○ True ● False

19c. The product of 0.08 and 0.7 is 5.6. ○ True ● False

19d. The product of 0.21 and 1.8 is 0.378. ● True ○ False

1 point for each correct answer

20. A builder buys 16.1 acres of land to develop a new set of walking trails and baseball fields.

2 pts possible

Part A — 1 pt

The builder plans to use 0.25 of the land for baseball fields. How many acres will the builder use for the baseball fields?

__4.025__ acres

Part B - 1 pt

The builder buys a second property that has 0.41 times as many acres as the first property. How many acres of land are in the second property? Show your work.

$$\begin{array}{r} 16.1 \\ \times\ 0.41 \\ \hline 161 \\ +\ 6440 \\ \hline 6.601 \end{array}$$

The second property has 6.601 acres of land.

21. The library is 0.9 mile from the school. The museum is 0.6 times as far from the school as the library. How far is the museum from the school? Write an equation to solve.

1 pt

$0.9 \times 0.6 = 0.54$ mile

22. Bruce is getting materials for a chemistry experiment. His teacher gives him a container that has 0.25 liter of a liquid in it. Bruce needs to use 0.4 of this liquid for the experiment. How much liquid will Bruce use?

1 pt

__0.1__ liter

STOP