Name _____ Date _____

1.1 Puzzle Time

Did You Hear About The...

A	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P	Q	

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

320 FOR
4436 TEST
181,632 BECAUSE
40 TO
4091 SPIDER
15,275 CAR
52 FAST
4460 TO
$44\frac{17}{164}$ IT
6 WANTED
18,622 WEB

Find the value of the expression.

A. $3328 + 763$

B. $6462 + 2841$

C. $2857 + 2788$

D. $8583 - 4123$

E. $6054 - 1618$

F. $3527 - 2072$

G. 73×26

H. 235×65

I. 528×344

J. $24\overline{)864}$

K. $432 \div 72$

L. $8960 \div 224$

M. $\dfrac{5409}{50}$

N. $\dfrac{7233}{164}$

O. Piano lessons cost $20 per week. How much will it cost, in dollars, for 16 weeks of piano lessons?

P. The scores of the first two football games were 28 and 35. What was the total number of points scored in the first two football games?

Q. The school store has 14 boxes of notebooks with the school mascot on them. If there are 980 notebooks, how many notebooks are in each box?

5645 ASKED
$108\frac{9}{50}$ TAKE
63 A
1455 DRIVE
60 SIGN
1898 A
70 SPIN
36 HE
7 BUMPER
9303 THAT
11 LIMIT

1.2 Practice B

Write the product as a power.

1. 12×12

2. $4 \cdot 4 \cdot 4$

3. $5 \times 5 \times 5 \times 5$

4. $25 \times 25 \times 25$

5. $30 \times 30 \times 30 \times 30 \times 30$

6. $17 \cdot 17 \cdot 17$

Find the value of the power.

7. 13^2

8. 2^5

9. 8^3

Use a calculator to find the value of the power.

10. 5^6

11. 13^4

12. 3^8

13. Describe and correct the error in writing the value of the product.

$$\times \quad 7^5 = 7 \times 5 = 35$$

14. The price of a car is 3×10^4. What is the price of the car?

Determine whether the number is a perfect square.

15. 169

16. 625

17. 336

Write the product as a power.

18. $d \cdot d \cdot d \cdot d$

19. $5 \cdot z \cdot z \cdot z$

20. $p \cdot p \cdot p \cdot p \cdot p \cdot p$

21. The number 75 falls between what two perfect squares?

22. A homeowner would like to modify the existing patio to create a square patio, either by adding new tiles or moving existing tiles. Each tile is one foot square. The current patio is shown.

a. What is the area of the existing patio in square feet?

b. How could the homeowner rearrange the tiles to create a square patio without adding new tiles?

c. How many tiles must the homeowner purchase to create a patio that is 49 square feet? Can this be done without moving any of the existing tiles?

d. To create a patio that is 25 square feet, the homeowner must move some tiles and remove others. How many tiles must be moved and how many must be removed?

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1.3 Practice A

Find the value of the expression.

1. $2 \times (5 - 3)$

2. $16 - (4 \times 3)$

3. $27 \div (3 + 6)$

Evaluate the expression.

4. $15 - 4 \times 3$

5. $5 + (2 + 1)^3$

6. $7 + 4 \times 2^3$

7. $30 \div 6 \times 2$

8. $4 + 6^2 \div 12$

9. $13 - (28 - 4^2)$

10. Describe and correct the error in evaluating the expression.

$$\cancel{} \quad 56 \div 4 \times 2 = 56 \div 8 = 7$$

11. For a math project, you need to complete 4 math worksheets in 5 days. Each worksheet contains 15 problems. Evaluate the expression $4 \times 15 \div 5$ to find how many problems you need to complete each day.

Evaluate the expression.

12. $(49 - 5^2) \div 2^3$

13. $7^2 - 5(10 - 3^2)$

14. $\left(\dfrac{5}{2} - \dfrac{3}{2}\right)^3 \times 16$

15. $33 - 6\left(1\dfrac{1}{3} + \dfrac{2}{3}\right)$

16. $18 - 5(4.7 - 1.7)$

17. $12(1.4 + 3.6) - 24 \div 3$

18. You have 8 dimes and 13 nickels. How many cents do you have?

19. Use all four operations without parentheses to write an expression that has a value of 1.

20. A family buys 3 dinners at $9 each, 2 kid's meals at $4 each, and 4 desserts at $3 each. After using a $10 off coupon, how much do they owe before sales tax? Explain how you solved the problem.

21. Four family members are going on an airplane trip together. They are parking a car at the airport terminal. The daily rate for parking a car is $17 per car. The cars will be parked for 6 days. What is the total cost per family member? Explain how you solved the problem.

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1.3 Practice B

Evaluate the expression.

1. $64 \div 4 \times 10$

2. $55 \div \left(4^2 - 5\right)$

3. $3 \bullet 7 + 4 \bullet 6^2$

4. $(22 - 4) \div (2 \times 3)$

5. $8^2 - 20 \div 2 \times 5$

6. $13 + \left(38 - 6^2\right) \bullet 3$

7. Evaluate each expression. Are the two expressions equal? Explain your answer.

   a. $(100 \div 5) \times 4$

   b. $100 \div 5 \times 4$

Evaluate the expression.

8. $(5 - 3)^4 - 2(7) + 8^2$

9. $27 - 3\left(5\dfrac{1}{2} - \dfrac{7}{2}\right)$

10. $9(6.2 + 5.8) + 28 \div 4$

11. $4^2(4.9 - 2.9) - 24 \div 3$

12. There are 34 people in a restaurant. Four groups of 3 people leave, and then 5 groups of 2 people arrive. Evaluate the expression $34 - 4 \bullet 3 + 5 \bullet 2$ to determine how many people are in the restaurant.

Evaluate the expression.

13. $\dfrac{11^2 - 5 + 4(7)}{(4)(3)}$

14. $\dfrac{54 \div 6 + 31}{4^2 + 4}$

15. A group of 8 students purchase 4 pizzas at $5 each, 2 orders of breadsticks at $2 each, and 8 drinks at $1.50 each. How much does each student owe before tax? Explain how you solved the problem.

16. Five sandwich rings are each cut into 4 pieces. You then cut each of the pieces into 3 servings. How many servings do you have?

17. Copy each statement. Insert $+, -, \times,$ or $\div$ symbols to make each statement true.

    a. $17 \underline{\ ?\ } 2 \underline{\ ?\ } 3 \underline{\ ?\ } 8 = 3$

    b. $33 \underline{\ ?\ } 3 \underline{\ ?\ } 2 \underline{\ ?\ } 5 = 1$