

3 Develop the Concept

Problem Solving

Exercise	Content
25	Fractions to Name Parts
26	Factor Pairs
27	Factor Pairs
28	Fractions and Decimals to Name Parts
29	Factors
30	Fractions and Decimals to Name Parts
31	Numerical Expressions
32	Factor Pairs; Common Factors

Students use underlying processes and mathematical tools for Exercises 25–32. Remind students to check for reasonableness when solving each problem.

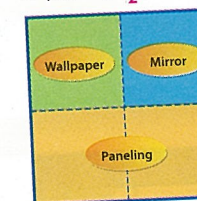
Exercise 31

Test-Taking Tip: Make a Plan Remind students to think about problem-solving skills and strategies. *Could you draw a picture of the situation? What would you draw?* [18 rows with 15 items in each row] *What else do you need to add to your picture?* [10 more items for the speakers' table] *What operations would you use to find the total number of chairs?* [Multiplication and addition]

Problem Solving

25. A restaurant wall was divided into 4 equal parts as shown. What fraction of the wall is the

a mirror? $\frac{1}{4}$
b paneling? $\frac{1}{2}$



27. The list shows all the factors for which number?

4, 8, 14, 7, 2, 1, 56, 28

A 9
B 28
☒ C 56
D 14

29. Which number is NOT a factor of 36?

A 1 ☒ C 20
B 18 D 36

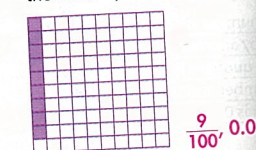
31. **Think About the Process** The town meeting hall was set up in 18 rows with 15 chairs in each row. There were also 10 chairs at the speakers' table. Which expression shows how many chairs were in the meeting hall?

A $(18 + 15) + 10$ ☒ C $(18 \times 15) + 10$
B $(15 \times 10) + 18$ D $(10 \times 15) \times 18$

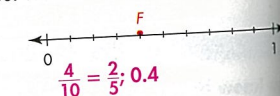
26. A museum has 80 African baskets. Which list shows all the different possible arrangements so that all the rows have the same number? Assume that an arrangement such as 4×20 is the same as 20×4 .

A $1 \times 80; 4 \times 20; 8 \times 10$
☒ B $1 \times 80; 2 \times 40; 4 \times 20; 5 \times 16; 8 \times 10$
C $2 \times 40; 5 \times 16; 8 \times 10$
D $2 \times 40; 4 \times 20; 5 \times 16; 8 \times 10$

28. Name a fraction and a decimal for the shaded part of the figure below.



30. Name the fraction and decimal at F.



32. List the factors of 24. Then list the factors of 16. What factors do they have in common? Which of those common factors is the greatest number?
1, 2, 3, 4, 6, 8, 12, 24; 1, 2, 4, 8, 16