



Name _____ Date _____

Using Patterns (pages 8–11)

Use the following steps to find missing numbers in a pattern.

Study the numbers that are shown in the pattern.	3, 6, 9, 12, <u> </u> , <u> </u> , <u> </u>
How do you get each succeeding number?	$\begin{array}{ccccccc} 3, & 6, & 9, & 12, & \underline{\quad}, & \underline{\quad}, & \underline{\quad} \\ \uparrow & \uparrow & \uparrow & & & & \\ +3 & +3 & +3 & & & & \end{array}$ <i>Each number is 3 more than the one before it.</i>
Find the next three numbers.	$12 + 3 = 15$ $15 + 3 = 18$ $18 + 3 = 21$

EXAMPLES

Find the next three numbers in the patterns.

A $3, 7, 11, 15, \underline{\quad}, \underline{\quad}, \underline{\quad}$
 $\quad \uparrow \quad \uparrow \quad \uparrow$
 $\quad +4 +4 +4$

Each number is 4 more than the one before it.

$$15 + 4 = 19 \quad 19 + 4 = 23 \quad 23 + 4 = 27$$

B $20, 17, 14, 11, \underline{\quad}, \underline{\quad}, \underline{\quad}$
 $\quad \downarrow \quad \downarrow \quad \downarrow$
 $\quad -3 -3 -3$

Each number is 3 less than the one before it.

$$11 - 3 = 8 \quad 8 - 3 = 5 \quad 5 - 3 = 2$$

Try These Together

Find the next three numbers in the patterns.

1. $3, 6, 12, 24, \underline{\quad}, \underline{\quad}, \underline{\quad}$

HINT: Multiply.

2. $45, 40, 35, 30, \underline{\quad}, \underline{\quad}, \underline{\quad}$

HINT: Subtract.

PRACTICE

Find the next two numbers in each pattern.

3. $2, 4, 6, 8, \underline{\quad}, \underline{\quad}$ 4. $2, 6, 10, 14, \underline{\quad}, \underline{\quad}$ 5. $50, 40, 30, 20, \underline{\quad}, \underline{\quad}$

6. $1, 3, 5, 7, \underline{\quad}, \underline{\quad}$ 7. $4, 7, 10, 13, \underline{\quad}, \underline{\quad}$ 8. $18, 15, 12, 9, \underline{\quad}, \underline{\quad}$

9. $4, 5, 4, 5, \underline{\quad}, \underline{\quad}$ 10. $8, 16, 8, 16, \underline{\quad}, \underline{\quad}$ 11. $5, 7, 9, 11, \underline{\quad}, \underline{\quad}$

12. Find the next three numbers in the pattern $2, 3, 5, 8, \underline{\quad}, \underline{\quad}, \underline{\quad}$.

13. **Health** Jamail's baby brother just started eating cereal. He had 2 spoonfuls on Monday, 3 on Tuesday, 4 on Wednesday, and 5 on Thursday. If this pattern continues, how many spoonfuls of cereal will he eat on Friday?

14. **Sports** Connie's basketball team won their first basketball game by 2 points, their second by 4 points, and their third by 8 points. If this pattern continues, by how many points will they win their fourth game?



15. **Standardized Test Practice** A store is having a sale on shirts. Each day, the price of the shirt goes down \$1 until all of the shirts are sold. If the shirts cost \$15 on Monday, how much will they cost on Wednesday?

A \$10

B \$11

C \$12

D \$13

Answers: 1. 48, 96, 192 2. 25, 20, 15 3. 10, 12 4. 18, 22 5. 10, 0 6. 9, 11 7. 16, 19 8. 6, 3 9. 4, 5 10. 8, 16 11. 13, 15 12. 12, 17, 23 13. 6 14. 16 15. D