

# Chapter 4 Review

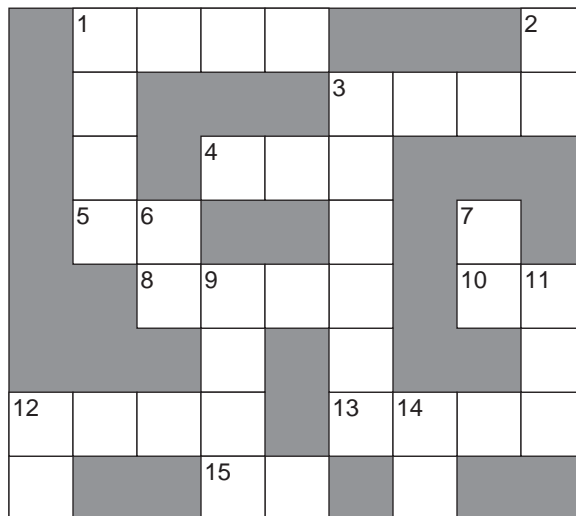
## Puzzling Factors and Fractions

Use the following clues to complete the puzzle at the right. Here are a few examples of how exponents and fractions should be entered into the puzzle.

$$\frac{5}{23} \Rightarrow \begin{array}{|c|c|c|} \hline 5 & 2 & 3 \\ \hline \end{array}$$

$$7x^3y^4 \Rightarrow \begin{array}{|c|c|c|c|c|} \hline 7 & x & 3 & y & 4 \\ \hline \end{array}$$

$$\frac{3}{a} \Rightarrow \begin{array}{|c|c|c|c|} \hline 3 & 4 & a & 2 \\ \hline \end{array}$$



### ACROSS

1. The quotient  $\frac{24ab^5}{4b^2}$
3.  $\frac{8a^2b}{4ab^3}$  in simplified form
4. The value of  $3^{-n}$  if  $n = 4$
5.  $\frac{36}{63}$  in simplest form
8.  $5xy^{-3}$  written using positive exponents
10. The LCD of  $\frac{1}{8}$  and  $\frac{2}{7}$
12.  $\frac{15x^5y^2}{90xy^3}$  in simplest form
13. The LCD of  $\frac{2}{3m}$  and  $\frac{3}{16n}$
15. The LCM of 15 and 10

### DOWN

1. The LCM of  $3a^4$ ,  $5a^2$ , and  $4a^3$
2. The value of  $a^2 - b$  if  $a = -5$  and  $b = 3$
3. The product  $(7xy^3)(3x^2y)$
6.  $\frac{1}{7^{-5}}$  written using positive exponents
7. The GCF of 30 and 45
9. The LCM of  $x^2y^2$  and  $xy^3$
11. The GCF of  $42mn^3$  and  $54m^2n$
12. The product of  $x^4$  and  $x^2$
14. The quotient of  $8^7$  and  $8^4$

Answers are located on page 135.