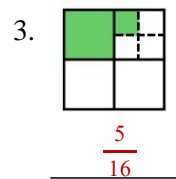**ANSWER KEY**

For #1 – 3, state the fraction of the whole that is represented by the shaded region.

1.

$$\frac{1}{8}$$

2.

$$\frac{3}{8}$$

3.

$$\frac{5}{16}$$
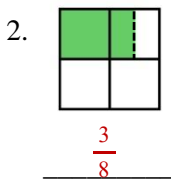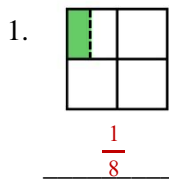
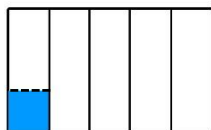4. Shade a region that represents one-half of one-sixth:
   Note: Answers may vary.
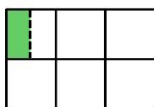
5. Referring to #4, what fraction of the whole does this shading represent? $\frac{1}{12}$

6. Shade a region that represents one-third of one-fifth:
   Note: Answers may vary.

7. Referring to #6, what fraction of the whole does this shading represent? $\frac{1}{15}$

8. What is one-half of one-half? $\frac{1}{4}$

9. What is two-thirds of three-fifths? $\frac{2}{5}$

10. Mariano wants to make a set of wooden play blocks for his daughter Angela. He purchased several pieces of lumber at the hardware store. To make the first wooden board easier to work with, he cut it into 6 equal pieces. Then he took one of these smaller pieces and cut it evenly in thirds to create the first blocks for Angela's set. What fraction of the original board does each of these blocks represent? $\frac{1}{18}$

11. Lucy measures three-fourths of a cup of vegetable oil for a recipe. She pours one-third of this oil into a small bowl and pours the rest into a larger bowl. How much oil does she put in the larger bowl? $\frac{2}{4} = \frac{1}{2}\ cup$

12. What is the greatest common factor (GCF) of 8 and 36? 4

13. What is the greatest common factor (GCF) of 12 and 60? 12

For #14 – 19, multiply and simplify if necessary.

14. $\frac{1}{5} \bullet \frac{1}{3} = \frac{1}{15}$

15. $\frac{15}{16} \bullet \frac{3}{5} = \frac{9}{16}$

16. $\frac{6}{28} \bullet \frac{7}{3} = \frac{1}{2}$

17. $\frac{10}{48} \bullet \frac{18}{20} = \frac{3}{16}$

18. $\frac{8}{20} \bullet \frac{40}{56} = \frac{2}{7}$

19. $\frac{25}{54} \bullet \frac{18}{100} = \frac{1}{12}$

For #20 – 22, multiply and simplify. Express your answer as an improper fraction.

20. $\frac{40}{70} \bullet \frac{14}{5} = \frac{8}{5}$

21. $\frac{18}{48} \bullet \frac{20}{6} = \frac{5}{4}$

22. $\frac{24}{48} \bullet \frac{25}{12} \bullet \frac{72}{20} = \frac{15}{4}$

For #23 – 25, multiply and simplify. Express your answer as a mixed number.

23. $\frac{2}{15} \bullet \frac{5}{2} \bullet \frac{39}{6} = 2\frac{1}{6}$

24. $\frac{20}{9} \bullet \frac{27}{4} \bullet \frac{6}{25} = 3\frac{3}{5}$

25. $\frac{15}{60} \bullet \frac{15}{8} \bullet \frac{32}{30} \bullet \frac{50}{6} = 4\frac{1}{6}$