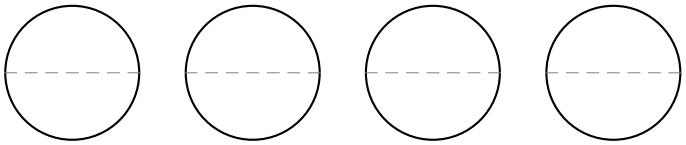
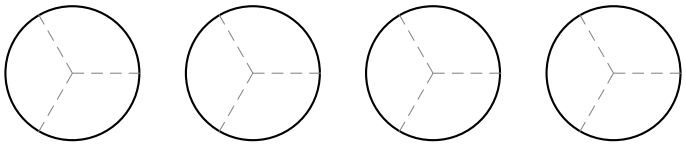
Shading Fractions

For the following problems, each circle represents one whole.

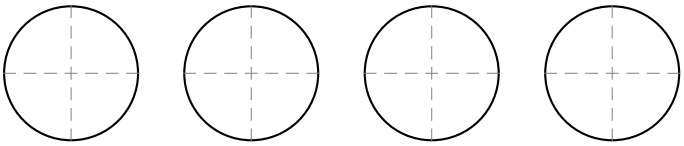
1. Shade $\frac{5}{2}$.



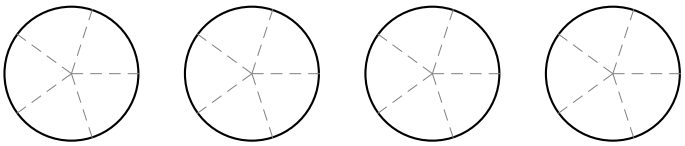
2. Shade $\frac{2}{3}$



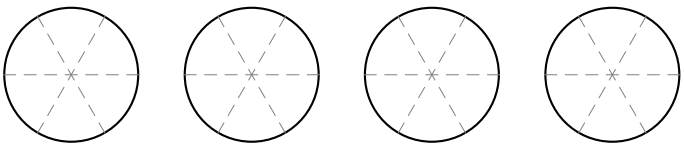
3. Shade $2\frac{3}{4}$



4. Shade the total of $\frac{3}{5}$ and $\frac{6}{5}$

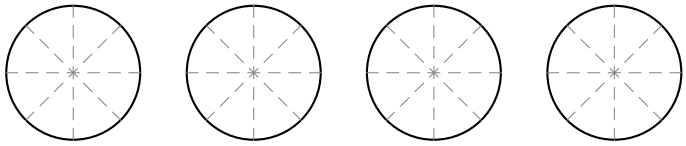


5. (a) Shade the total of $\frac{5}{6}$ and $\frac{7}{6}$



(b) What is another, simpler way to write $\frac{12}{6}$?

6. (a) Shade the total of $\frac{5}{8}$ and $\frac{7}{8}$



(b) What is the simplest way to write $\frac{12}{8}$?

Simplest Form

7. Describe in words the steps to write a fraction in simplest form (lowest terms).

8. Write $\frac{12}{15}$ in simplest form.

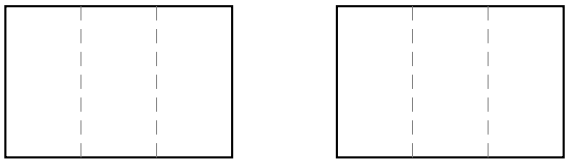
9. Write $\frac{63}{72}$ in simplest form.

10. Write $\frac{60}{36}$ in simplest form.

11. Write $\frac{72}{420}$ in simplest form.

Fraction Multiplication

12. (a) Lightly shade $\frac{5}{3}$.



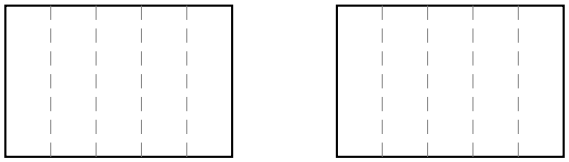
(b) Darkly shade half of the lightly shaded part (draw extra lines if it is helpful).

(c) What fraction is $\frac{1}{2}$ of $\frac{5}{3}$?

(d) Multiply: $\frac{1}{2} \cdot \frac{5}{3}$.

(e) What is the general rule for multiplying fractions?

13. (a) Lightly shade $\frac{9}{5}$.



(b) Darkly shade two-thirds of the lightly shaded part.

(c) Why was there no need to draw extra lines in this problem?

(d) What fraction is $\frac{2}{3}$ of $\frac{9}{5}$?

(e) Multiply: $\frac{2}{3} \cdot \frac{9}{5}$.

14. Multiply $\frac{1}{2} \cdot \frac{2}{15}$. Write in simplest form.

15. Multiply $\frac{9}{20} \cdot \frac{10}{90}$. Write in simplest form.

16. Multiply $\frac{11}{20} \cdot \frac{1}{7} \cdot \frac{5}{22}$. Write in simplest form.

17. (a) Multiply $3\frac{4}{5} \cdot 6\frac{2}{7}$. Write in simplest form.

    (b) What do you have to do as a first step when multiplying mixed numbers?

18. Write $3\frac{5}{8}$ as an improper fraction.

19. Write $\frac{46}{11}$ as a mixed number.

20. What is the most confusing thing about working with fractions?