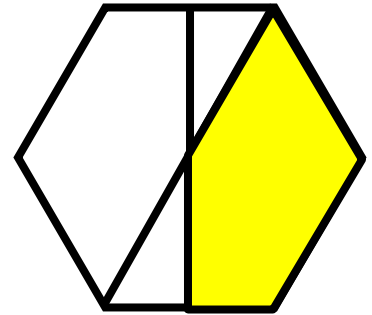


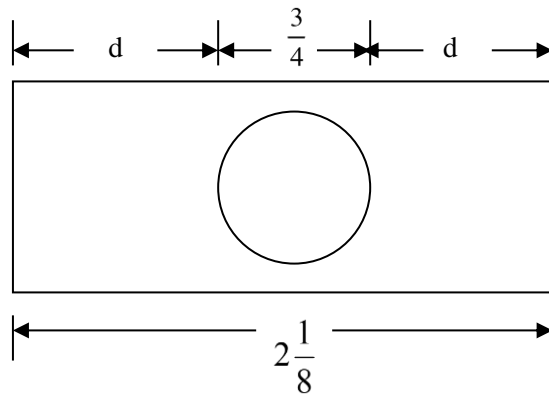
Applications of Fractions Worksheet

Answer in your maths pad, not on this sheet.

1. I have recorded 3 hours of TV on a video tape. One-third of the tape contains commercials. I fast-forward through the commercials. How long will it take me to watch the shows I have recorded?
2. What is the four digit number in which the first digit is $\frac{1}{4}$ of the last digit, the second digit is 6 times the first digit, and the third digit is the second digit plus 3?
3. What fraction of the hexagon is shaded? Leave your answer as the simplest possible fraction.
4. Simplify $\frac{3}{1+\frac{2}{5}}$
5. Ben had 7 times as many lollies as Joanna. Joanna had $\frac{3}{5}$ as many as Jan. If Jan has 20 lollies, how many does Ben have?
6. Two fractions add to $\frac{2}{3}$. How many different solutions can you find? (Find at least five.)
7. Two fractions multiply to give $\frac{2}{3}$. How many different solutions can you find? (Find at least five.)
8. I have recorded 2 hours and 20 minutes of TV on a video tape. Commercials occupy one-quarter of the tape. I fast-forward through the commercials. How long will it take me to watch the shows I have recorded?
9. I have recorded three-quarters of an hour of TV on a video tape. Commercials occupy one-quarter of the tape. I fast-forward through the commercials. How long will it take me to watch the shows I have recorded?
10. A piece of timber that is $6\frac{3}{8}$ " long is cut into three pieces of equal length. How long is each piece?
11. A piece of timber that is $4\frac{1}{4}$ " long is cut into three pieces of equal length. How long is each piece?
12.
 - a. A gold chain that is $8\frac{1}{2}$ " long is cut into two equal pieces. How long is each piece?
 - b. A gold chain that is $12\frac{1}{4}$ " long is cut into three equal pieces. How long is each piece?
 - c. A gold chain that is $9\frac{3}{5}$ " long is cut into four equal pieces. How long is each piece?
13.
 - a. There is $\frac{5}{8}$ of a pizza left over. How much of a pizza does each person receive if this pizza is divided between six people?
 - b. There are $2\frac{1}{2}$ pizzas left over. How much pizza does each person receive if this pizza is divided between six people?



14. Find the length marked d in the diagram below.



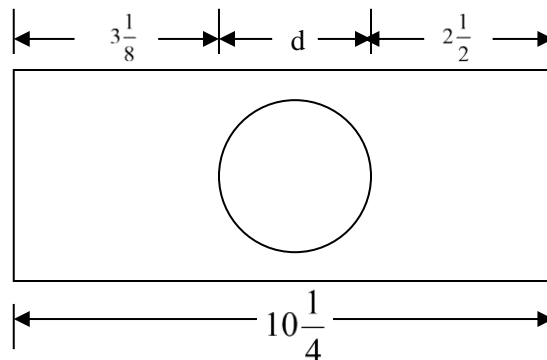
15. A will divides an inheritance as follows: $\frac{3}{4}$ goes to the Smith family and $\frac{1}{4}$ goes to the Jones family. Of the money left to the Smith family, $\frac{1}{2}$ goes to Will Smith, $\frac{1}{3}$ goes to Rachel Smith and the rest goes to David Smith.

Of the money left to the Jones family, $\frac{3}{5}$ goes to Mark Jones and the rest goes to Sara Jones.

If the total inheritance is \$240 000,

- How much goes to the Smith family and how much to the Jones family?
 - How much does each member of the Smith family receive?
 - How much does each member of the Jones family receive?
16. A rectangular plot of land measures 300 m by 100 m.
- What is the total area of this block of land?
- Three brothers buy the block between them. They divide up the land based upon how much each pays.
- Jonno pays $\frac{1}{3}$ of the total price. What area does he receive?
 - Slim pays $\frac{1}{5}$ of the total price. What area does he receive?
 - What area does the other brother, Bluey, receive?

17. Find the length marked d in the diagram below. All measurements are in inches.



Answers: 1. one hour 2. 1467 3. $\frac{5}{12}$ 4. $2\frac{1}{7}$ 5. 84 6. e.g. $\frac{1}{3} + \frac{1}{3}$, $\frac{1}{6} + \frac{1}{2}$ 7. e.g. $\frac{2}{3} \times \frac{1}{1}$, $\frac{2}{4} \times \frac{4}{3}$ 8. 1 hr 45 min
 9. 33.75 min 10. $2\frac{1}{8}$ " 11. $4\frac{1}{12}$ " 12. $2\frac{2}{5}$ " 13. a. $\frac{5}{48}$ b. $\frac{5}{12}$ 14. $\frac{5}{8}$ " 15. a. \$180 000, \$60 000 b. Will - \$90 000, Rachel - \$60 000, Sarah - \$30 000 c. Mark - \$36 000, Sara - \$24 000 16. a. 30 000 m² b. 10 000 m² c. 6 000 m² d. 14 000 m² 17. $4\frac{5}{8}$ "