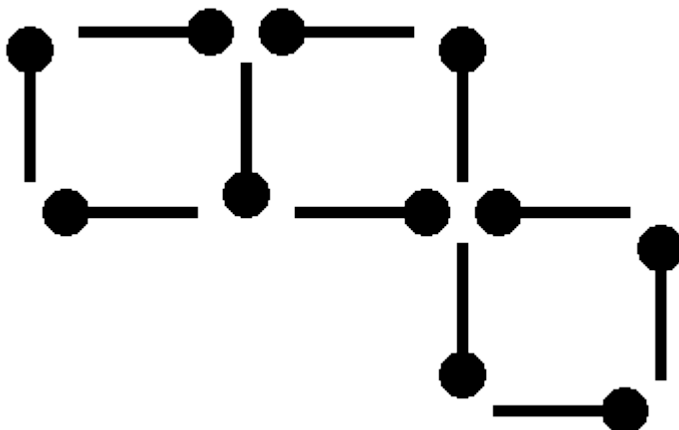


1. In this diagram 11 matches make 3 squares:



Your challenge is to move 3 matches to show 2 squares.

2. Duncan uses  $\frac{1}{2}$  of a cup of vinegar in his salad dressing recipe. How much vinegar would Duncan use to make  $\frac{1}{4}$  of a recipe?

*Simplify your answer and write it as a proper fraction or as a whole or mixed number.*

3. Jackson High School is holding a fundraiser and plans to use  $\frac{5}{8}$  of the money collected to build a new library. Of the money directed towards building the new library,  $\frac{3}{4}$  will go towards purchasing computers. What fraction of the money raised will go towards purchasing computers for the library?
4. At Madison High School,  $\frac{2}{5}$  of the students play a sport. Of the students who play a sport,  $\frac{1}{5}$  play football. What fraction of the students at Madison High School play football?
5. Lia's lemon cookie recipe calls for  $\frac{4}{5}$  of a cup of sugar. How much sugar would Lia use to make  $\frac{3}{8}$  of a batch of cookies?
6. Yesterday, Dave's Snack Shack went through  $\frac{1}{3}$  of a bottle of ketchup. If they used  $\frac{1}{3}$  as much mustard as ketchup, how many bottles of mustard did they go through?
7. The dolphins at the Warren Aquarium are fed  $\frac{1}{2}$  of a bucket of fish each day. The sea otters are fed  $\frac{1}{2}$  as much fish as the dolphins. How many buckets of fish are the sea otters fed each day?
8. Henry operates a hot dog stand. On Wednesday he used  $\frac{3}{10}$  of a bag of hot dog buns. On Thursday he used  $\frac{2}{5}$  as many hot dog buns as on Wednesday. How many bags of hot dog buns did Henry use on Thursday?
9. Greg made strawberry jam and raspberry jam. He made enough strawberry jam to fill  $\frac{4}{5}$  of a jar. If he made  $\frac{1}{8}$  as much raspberry jam as strawberry jam, how many jars will the raspberry jam fill?
10. Jeanette had  $\frac{3}{4}$  of an apple pie. She gave  $\frac{1}{2}$  of what she had to her friend Lexi. What fraction of the whole pie did Lexi get?

11. Of the songs in Cooper's music library,  $\frac{3}{4}$  are rock songs. Of the rock songs,  $\frac{1}{2}$  feature a guitar solo. What fraction of the songs in Cooper's music library are rock songs that feature a guitar solo?
12. Emma operates an orange juice stand. On Monday she used  $\frac{1}{3}$  of a bag of oranges. On Tuesday she used  $\frac{2}{3}$  as many oranges as on Monday. How many bags of oranges did Emma use on Tuesday?
13. At Lincoln College,  $\frac{3}{8}$  of the students are enrolled in an art class. Of the students enrolled in an art class,  $\frac{1}{6}$  are enrolled in a painting class. What fraction of the students at Lincoln College are enrolled in a painting class?
14. Scarlett and Nancy are collecting clothes for a clothing drive. Nancy collected  $\frac{3}{5}$  as many clothes as Scarlett did. If Scarlett collected  $\frac{4}{5}$  of a bag of clothes, how many bags of clothes did Nancy collect?
15. Zack went to the candy store and bought  $\frac{5}{6}$  of a pound of candy. If  $\frac{2}{5}$  of Zack's candy was chocolate, how many pounds of chocolate candy did Zack buy?
16. At Marta's Restaurant,  $\frac{5}{8}$  of the dishes on the menu are vegetarian. Of the vegetarian dishes,  $\frac{1}{2}$  are pasta dishes. What fraction of the dishes on the menu are vegetarian pasta dishes?
17. Of the students in the band,  $\frac{1}{2}$  play a brass instrument. Of the students who play a brass instrument,  $\frac{2}{5}$  play the trumpet. What fraction of the students in the band play the trumpet?
18. Ava had  $\frac{7}{8}$  of a pound of blueberries. Ava let her friend Lyla eat  $\frac{1}{3}$  of the blueberries. How many pounds of blueberries did Lyla eat?
19. Last week, Danny's Fruit Stand sold  $\frac{1}{4}$  of a box of grapefruits. Down the road, Laverne's Fruit Stand sold  $\frac{3}{5}$  as many boxes of grapefruits as Danny's did. How many boxes of grapefruits did Laverne's Fruit Stand sell?
20. The elephants at the Franklin Zoo are fed  $\frac{3}{5}$  of a barrel of corn each day. The buffalo are fed  $\frac{3}{4}$  as much corn as the elephants. How many barrels of corn are the buffalo fed each day?
21. At the Hamilton Zoo,  $\frac{1}{2}$  of the animals are primates. Of the primates,  $\frac{1}{4}$  are monkeys. What fraction of the animals at the Hamilton Zoo are monkeys?