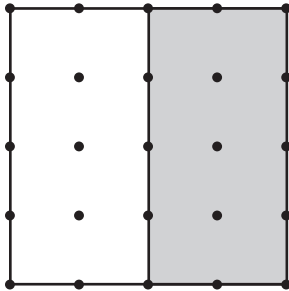


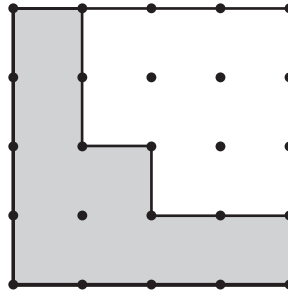
Exploring One Half

Divide a square in half in 9 different ways.

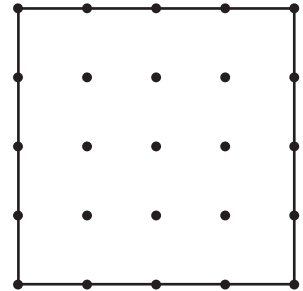
1.



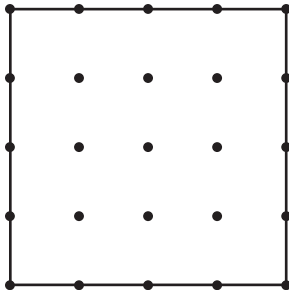
2.



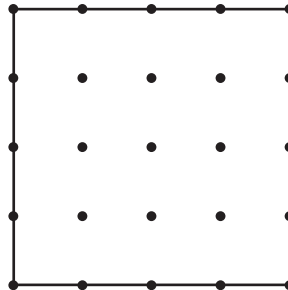
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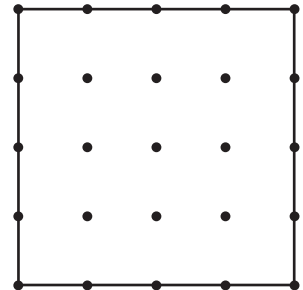
4.



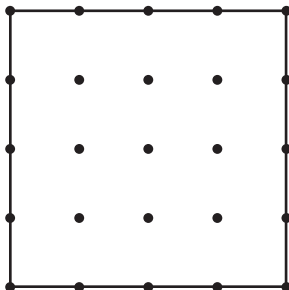
5.



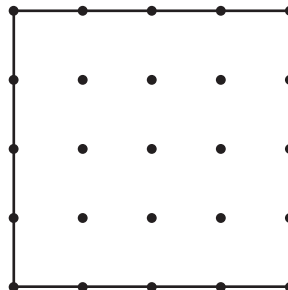
6.



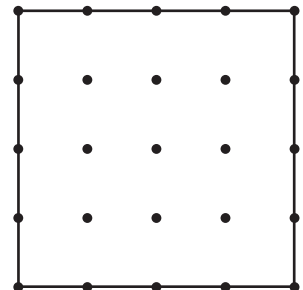
7.



8.



9.



Solving Equations

What is missing? Write the same number in the same shapes.

1.

$$\triangle 6 + \triangle = 12$$

2.

$$18 = \bigcirc + \bigcirc$$

3.

$$\diamond + \diamond = 28$$

4.

$$50 = \text{trapezoid} + \text{trapezoid}$$

5.

$$\square + \square = 16$$

6.

$$\text{hexagon} + \text{hexagon} = 200$$

7.

$$10 - \star = \star$$

8.

$$30 - \heartsuit = \heartsuit$$

9.

$$\text{pentagon} + \text{pentagon} + \text{pentagon} + \text{pentagon} = 16$$

Doubling and Halving Numbers

Matt has 46 crayons.

Alex has double the number of Peyton's crayons.

Eric has half as many crayons as Peyton.

Tammy has twice as many crayons as Alex.

Peyton has 10 crayons less than Matt.

How many crayons does each person have?

1. Max has _____ crayons.

2. Alex has _____ crayons.

3. Eric has _____ crayons.

4. Peyton has _____ crayons.

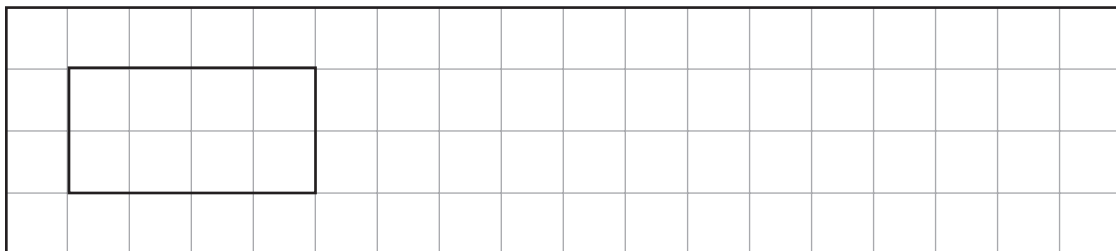
5. Tammy has _____ crayons.

Doubling Squares

How many ☐ are inside each figure?

Draw a figure with double the number of ☐.

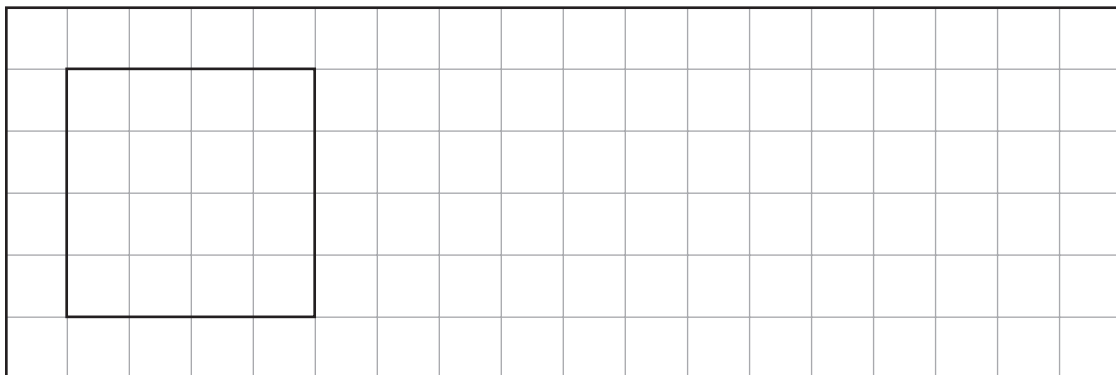
1.



$\square = \underline{\hspace{2cm}}$

$\square = \underline{\hspace{2cm}}$

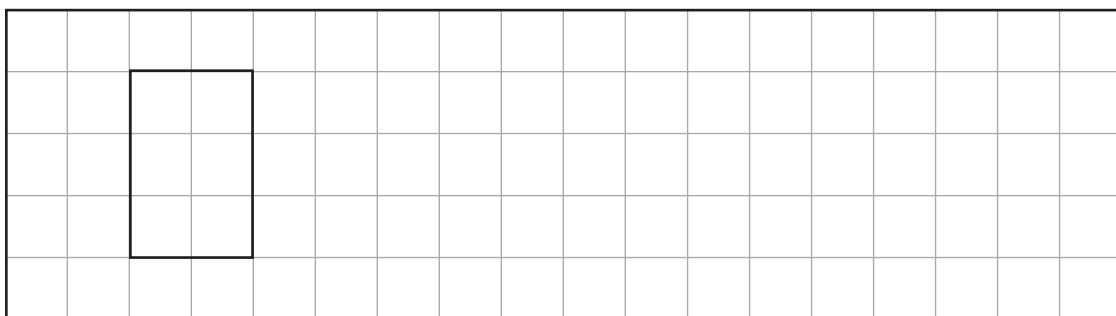
2.



$\square = \underline{\hspace{2cm}}$

$\square = \underline{\hspace{2cm}}$

3.

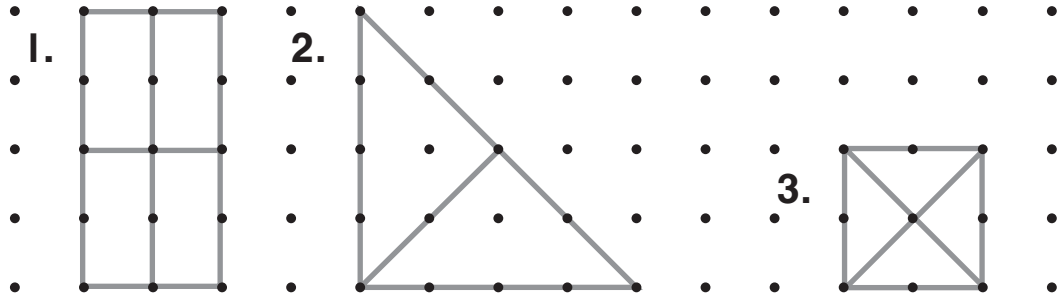


$\square = \underline{\hspace{2cm}}$

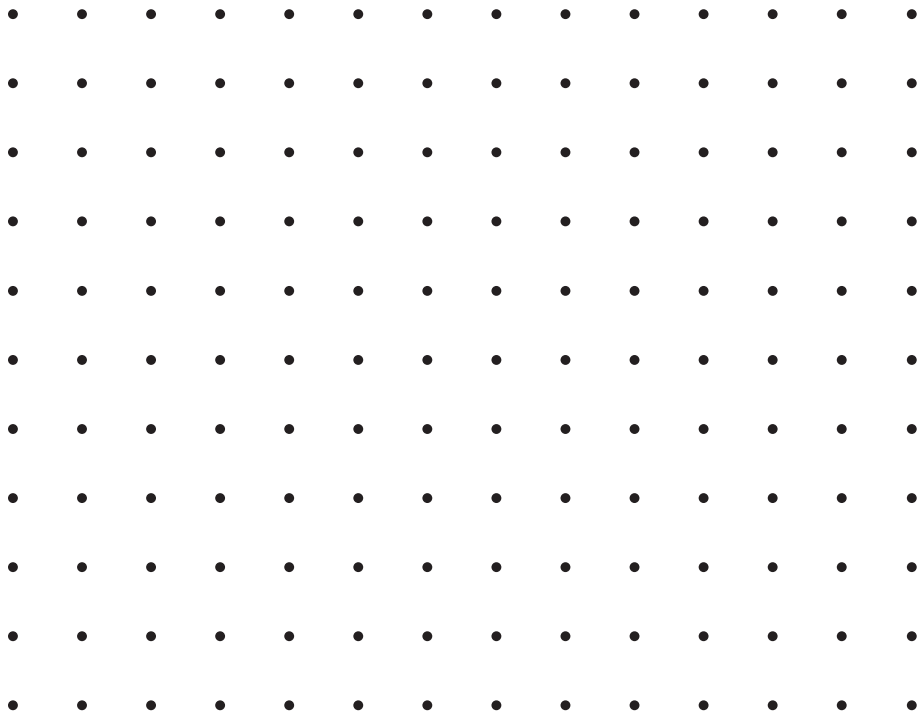
$\square = \underline{\hspace{2cm}}$

Doubling Sides

Draw new figures. Make the sides twice as long as the sides in the gray figures.



1.



Thirds and Fourths

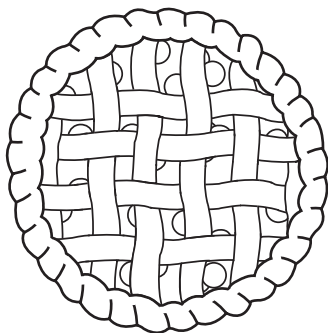
1. Color to show about $\frac{1}{3}$ of a cup.



2. Color to show about $\frac{1}{3}$ of an inch.



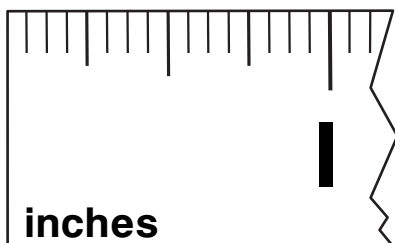
3. Color to show about $\frac{1}{3}$ of a pie.



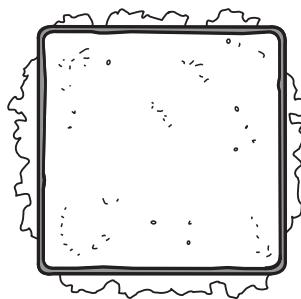
4. Color to show about $\frac{1}{4}$ of a ribbon.



5. Color to show $\frac{1}{4}$ of an inch.



6. Color to show $\frac{1}{4}$ of a sandwich.



Fair Shares

Draw a picture to solve each problem.

1. Miss Green cuts a pie into 8 equal pieces. How many pieces are there in $\frac{1}{4}$ of the pie?

_____ pieces

2. Louis has 6 cookies. He wants to share the cookies equally with Mark. How many cookies should each child get?

_____ cookies

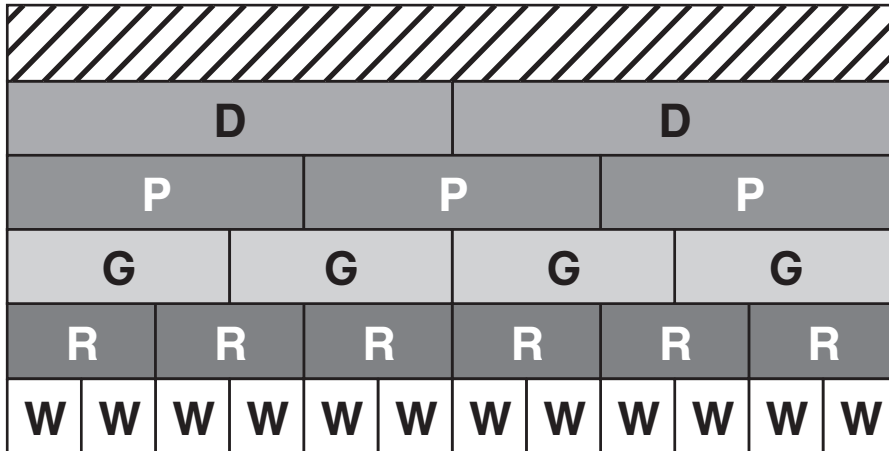
3. Jorge has 10 nickels. If he spends 25¢, what fraction of his money has he spent?

_____ of his money

4. There are 12 children at the park. One child is wearing glasses. The rest are not. What fraction of the children is NOT wearing glasses?

_____ of the children

Exploring Equivalent Fractions



Write fractions to make each sentence true.
Use the picture to help you.

1. $\frac{6}{12}$
6 whites = 3 reds, so $\frac{6}{12} = \underline{\hspace{1cm}}$.

2. 3 reds = 2 greens, so $\underline{\hspace{1cm}} = \underline{\hspace{1cm}}$.

3. 2 greens = 1 dark green, so $\underline{\hspace{1cm}} = \underline{\hspace{1cm}}$.

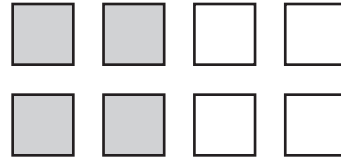
4. So $\underline{\hspace{1cm}} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}} = \frac{1}{2}$.

Fraction of a Number

Write the missing numbers. Color squares to help you.

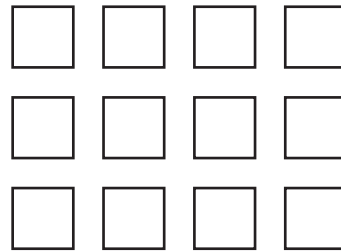
1.

$$\frac{1}{2} \text{ of } 8 = \underline{\hspace{2cm}}$$



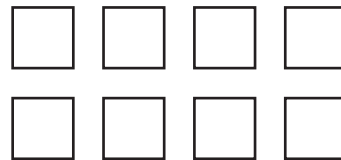
2.

$$\frac{1}{3} \text{ of } 12 = \underline{\hspace{2cm}}$$



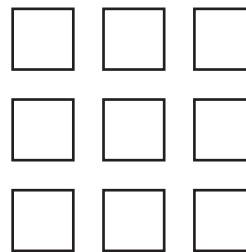
3.

$$\frac{1}{4} \text{ of } 8 = \underline{\hspace{2cm}}$$



4.

$$\frac{1}{3} \text{ of } 9 = \underline{\hspace{2cm}}$$



5.

$$\frac{3}{4} \text{ of } 16 = \underline{\hspace{2cm}}$$

