

# Investigating Prime and Composite Numbers

NCTM Standards 1, 2, 6, 8, 10

List the factors and draw lines to connect factor pairs. Write *P* for prime, *C* for composite, or *N* for neither.

Number	Factors	P, C, or N
1 8		<input type="text"/>
2 19		<input type="text"/>
3 30		<input type="text"/>
4 1		<input type="text"/>
5 42		<input type="text"/>
6 29		<input type="text"/>



- 7 What is the only even prime number? Use a diagram to explain how you know the number is prime.

List the factors for each number. Then list any common factors for the two numbers. Circle the greatest common factor.

Example

27

18

1 3 9 27

1 2 3 6 9 18

Common Factor(s): 1, 3, 9

8

12

48

Common Factor(s): \_\_\_\_\_

9

36

60

Common Factor(s): \_\_\_\_\_



10 Thomas is packaging trading cards to give to his friends. He is going to give away 45 baseball cards and 36 football cards. Each package will have one kind of card and all the packages will have the same number of cards. What different ways can Thomas package the trading cards? Explain how you solved the problem.

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**11 Challenge**

Find two composite numbers that do not have any common factors other than 1. \_\_\_\_\_