# **Perfect Numbers?**

What are the proper factors of 15?  factors: 1, 3, 5, 15  proper factors: 1, 3, 5    Directions:  Study the sample above and the Facts and Reminders page for this unit. List the proper factors:	Proper Factors					
factors for each number listed below.  1. 21  2. 25    factors:		What are the proper factors of 15?	facto	rs: 1, 3, 5, 15	proper factors: 1, 3, 5	
factors:		• 1	the Fact	s and Reminder	s page for this unit. List the proper	
proper factors:	1.	21	2.	25		
3. 18  4. 20    factors:		factors:		factors:		
factors:		proper factors:		proper factors:		
proper factors:	3.	18	4.	20		
5. 28  6. 16    factors:  proper factors:    proper factors:  proper factors:    7. 36  8. 44    factors:  factors:    proper factors:  proper factors:    Directions: Use a calculator to compute the sum of the proper factors for each number listed below.  9. 72    9. 72  10. 81    factors:  proper factors:    proper factors:  proper factors:    11. 100  12. 144    factors:  factors:    proper factors:  sum of proper factors:    proper factors:  sum of proper factors:    13. 200  14. 98    factors:  factors:    proper factors:		factors:		factors:		
factors:		proper factors:		proper factors:		
proper factors:     7. 36  8. 44    factors:     proper factors:     proper factors:     proper factors:     Directions:  Use a calculator to compute the sum of the proper factors for each number listed below.    9. 72  10. 81    factors:     proper factors:     sum of proper factors:     proper factors:     proper factors:     proper factors:     proper factors:     proper factors:	5.	28	6.	16		
7. 36  8. 44    factors:  factors:    proper factors:  proper factors:    Directions: Use a calculator to compute the sum of the proper factors for each number listed below.  9. 72    9. 72  10. 81    factors:  factors:    proper factors:  factors:    proper factors:  factors:    proper factors:  proper factors:    11. 100  12. 144    factors:  factors:    proper factors:  proper factors:    sum of proper factors:  proper factors:    ja 200  14. 98    factors:  factors:    proper factors:  proper factors:    jactors:		factors:		factors:		
factors:		proper factors:		proper factors:		
proper factors:	7.	36	8.	44		
Directions: Use a calculator to compute the sum of the proper factors for each number listed below.    9. 72  10. 81    factors:  factors:    proper factors:  proper factors:    sum of proper factors:  proper factors:    11. 100  12. 144    factors:  factors:    proper factors:  proper factors:    sum of proper factors:  proper factors:    proper factors:  factors:    proper factors:  proper factors:    proper factors:  proper factors:    junction of proper factors:  proper factors:    proper factors:  proper factors:    junction of proper factors:  proper factors:    junction of proper factors:		factors:		factors:		
9. 72  10. 81    factors:  factors:    proper factors:  proper factors:    sum of proper factors:  sum of proper factors:    11. 100  12. 144    factors:  factors:    proper factors:  proper factors:    proper factors:  proper factors:    proper factors:  sum of proper factors:    13. 200  14. 98    factors:  factors:    proper factors:  proper factors:    proper factors:  proper factors:		proper factors:		proper factors:		
9. 72  10. 81    factors:  factors:    proper factors:  proper factors:    sum of proper factors:  sum of proper factors:    11. 100  12. 144    factors:  factors:    proper factors:  proper factors:    proper factors:  proper factors:    proper factors:  sum of proper factors:    13. 200  14. 98    factors:  factors:    proper factors:  proper factors:    proper factors:  proper factors:	Dire	ctions: Use a calculator to compute t	the sum	of the proper fa	ctors for each number listed below.	
proper factors:		-				
sum of proper factors:  sum of proper factors:    11. 100  12. 144    factors:  factors:    proper factors:  proper factors:    sum of proper factors:  proper factors:    13. 200  14. 98    factors:  factors:    proper factors:  proper factors:    proper factors:  proper factors:    proper factors:  proper factors:    proper factors:  proper factors:		factors:		factors:		
11. 100  12. 144    factors:  factors:    proper factors:  proper factors:    sum of proper factors:  sum of proper factors:    13. 200  14. 98    factors:  factors:    proper factors:  proper factors:    proper factors:  proper factors:		proper factors:		proper factors:		
factors:		sum of proper factors:		sum of proper f	factors:	
proper factors:	11.	100	12.	144		
sum of proper factors:  sum of proper factors:    13. 200  14. 98    factors:  factors:    proper factors:  proper factors:    proper factors:  proper factors:		factors:		factors:		
13. 200  14. 98    factors:  factors:    proper factors:  proper factors:		proper factors:		proper factors:		
factors:     proper factors:     proper factors:		sum of proper factors:		sum of proper f	factors:	
proper factors: proper factors:	13.	200	14.	98		
•••		factors:		factors:		
sum of proper factors: sum of proper factors:		proper factors:		proper factors:		
		sum of proper factors:		sum of proper f	factors:	

### **Perfect Numbers?**

#### Working with Abundant and Defective Numbers

Is 24 an abundant or defective number?

The proper factors of 24 are 1, 2, 3, 4, 6, 8, and 12.

The sum of the proper factors is 36. So 24 is an abundant number.

**Directions:** Study the sample above and the Facts and Reminders page for this unit. List the proper factors for each number listed below. Use a calculator to compute the sum of the proper factors for each number listed below. Label each number as *abundant* or *defective*.

1.	20	2.	16
	proper factors:		proper factors:
	sum of proper factors:		sum of proper factors:
	name:		name:
3.	38	4.	50
	proper factors:		proper factors:
	sum of proper factors:		sum of proper factors:
	name:		name:
5.	64	6.	18
	proper factors:		proper factors:
	sum of proper factors:		sum of proper factors:
	name:		name:
7.	100	8.	36
	proper factors:		proper factors:
	sum of proper factors:		sum of proper factors:
	name:		name:
9.	48	10.	144
	proper factors:		proper factors:
	sum of proper factors:		sum of proper factors:
	name:		name:
11.	125	12.	150
	proper factors:		proper factors:
	sum of proper factors:		sum of proper factors:
	name:		name:
13.	60	14.	90
	proper factors:		proper factors:
	sum of proper factors:		sum of proper factors:
	name:		name:

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# Perfect Numbers?

Is 28 an abundant, defective, or perfect number?

### **Determining Perfect, Abundant, and Defective Numbers**

The proper factors of 28 are 1, 2, 4, 7, and 14.					
The sum of the proper factors is 28.	So 28 is a perfect number.				
	age for this unit. List the proper factors for each number				
listed below. Use a calculator to compute the s Label each number as <i>abundant</i> , <i>defective</i> , or <i>p</i>	sum of the proper factors for each number listed below.				
<b>1.</b> 116	<b>2.</b> 300				
proper factors:	proper factors:				
sum of proper factors:	sum of proper factors:				
name:	name:				
	·····				
<b>3.</b> 95	<b>4.</b> 380				
proper factors:	proper factors:				
sum of proper factors:	sum of proper factors:				
name:	name:				
<b>5.</b> 120	<b>6.</b> 288				
proper factors:	proper factors:				
sum of proper factors:	sum of proper factors:				
name:	name:				
<b>7.</b> 496	8. 888				
proper factors:	proper factors:				
sum of proper factors:	sum of proper factors:				
name:	name:				
<b>9.</b> 960 <b>1</b>	<b>0.</b> 100				
proper factors:	proper factors:				
sum of proper factors:	sum of proper factors:				
name:	name:				
	2. 900				
proper factors:	proper factors:				
sum of proper factors:	sum of proper factors:				
name:	name:				
<b>13.</b> 1,000 <b>1</b>	4. 999				
proper factors:	proper factors:				
sum of proper factors:	sum of proper factors:				
name:	name:				
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