## **Activity 21**

Use the clues and the chart to determine the value of each letter, solve the cryptogram, and discover the classic joke.

	h	С	S	t
10				
8				
7				
5				

h	=	
С	=	
S	=	

$$n > 99 \div 9$$
 $p \ne n - 3$ 
 $f \ne n - 1$ 
 $l < n \div 2$ 

$$a \div o = g$$
  
 $e \times e = g - e$ 

	g	0	а	е
6				
6 3				
2				
1				

**Cryptogram** (Parentheses separate double digits; they have no other meaning.)

W8y did (10)81 23491r (10)6k1 (10)w3 (11)6ir5 39 (11)6(12)(10)5 (10)3 (10)81 26m1? I(12) 7651 81 23(10) 6 8341 i(12) 3(12)1!

W _ y did r k _	_ w _
ir	
I	i!

## **Answers**

**Page 21:** Why did the golfer take two pairs of pants to the game? In case he got a hole in one!

	h	С	S	t
10	_	_	_	+
8	+	_	_	_
7	_	+	_	_
5	_	_	+	_

Answers: h = 8; c = 7; s = 5; t = 10If t does not equal 71 minus 63, then t is not 8. If c is less than 99 minus 91, c must be 5 or 7 for the statement to be true. Since s is less than c, s must be 5 and s must be 7. Therefore, t must be 10 since it is not 8, 5, or 7. t is then 8.

	р	I	f	n
12	_	_		+
11	+	_		_
9	_	_	+	_
4	_	+		_

Answers: p = 11; l = 4; f = 9; n = 12If n is greater than 99 divided by 9, n must be 12 for the statement to be true. If p does not equal n minus 3, p is not 9. If f does not equal n minus 1, f is not 11. If f is less than f divided by 2, f must be 4, the only number less than 6. Therefore, f must be 9 and f must be 11.

	g	0	а	е
6	_	_	+	
3	_	+	_	
2	+		_	
1		_		+

Answers: g = 2; o = 3; a = 6; e = 1If a divided by o equals g, a must be 6, and o and g must be either 2 or 3 for the equation to be true. Since e times e equals g minus e, g must be 2 and e must be 1 for the equation to be true. Therefore, o must be 3.