

## Activity 2

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

$$l > a > n$$

$$s > a > n$$

$$l - a = n$$

	l	a	s	n
1				
2				
3				
4				

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

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

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

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

$$h + r = 12$$

$$h > r$$

$$h > t$$

	i	r	h	t
5				
6				
7				
8				

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

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

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

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

$$y > c$$

$$c < e$$

$$o + 2 = 14$$

$$e < y$$

	y	o	c	e
9				
10				
11				
12				

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

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

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

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

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

W7(11) 921'6 (11)(12)u 6(10)33 2 4(10)95(10)6 81  
 2 9(12)51f8(10)3d? 6(12)(12) m21(11) (10)254 25(10)  
 3846(10)181g!

W \_ \_ \_ ' \_ \_ \_ u \_ \_ \_ \_ \_  
 \_ \_ \_ \_ \_ f \_ \_ \_ d? \_ \_ \_ m \_ \_ \_  
 \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ g!

# Answers

**Page 2:** Why can't you tell a secret in a cornfield? Too many ears are listening!

	l	a	s	n
1	—	—	—	+
2	—	+	—	—
3	+	—	—	—
4	—	—	+	—

Answers:  $l = 3$ ;  $a = 2$ ;  $s = 4$ ;  $n = 1$

Since  $l$  and  $s$  are both greater than  $a$  and  $n$ ,  $l$  and  $s$  must be the largest numbers, either 3 or 4. Since  $n$  is less than  $s$ ,  $l$ , and  $a$ , then  $n$  must be 1, the smallest number. Since  $a$  is larger than  $n$ , but less than  $l$  and  $s$ ,  $a$  must be 2. If  $l$  minus  $a$  equals  $n$ , then  $l$  must be 3 for the equation to be true.  $s$  is then 4.

	i	r	h	t
5	—	+	—	—
6	—	—	—	+
7	—	—	+	—
8	+	—	—	—

Answers:  $i = 8$ ;  $r = 5$ ;  $h = 7$ ;  $t = 6$

If  $h$  plus  $r$  equals 12, then  $h$  and  $r$  must be either 5 or 7 for the equation to be true. Since  $h$  is greater than  $r$ ,  $h$  must be 7 and  $r$  must be 5. Since  $t$  is less than  $h$ ,  $t$  must be 6, the only number remaining which is less than 7.  $i$  is then 8.

	y	o	c	e
9	—	—	+	—
10	—	—	—	+
11	+	—	—	—
12	—	+	—	—

Answers:  $y = 11$ ;  $o = 12$ ;  $c = 9$ ;  $e = 10$

If  $o$  plus 2 equals 14,  $o$  must be 12 for the equation to be true. Since  $y$  is greater than  $c$  and  $e$ ,  $y$  must be 11, the largest remaining number. Since  $c$  is less than  $e$ ,  $c$  must be 9 and  $e$  must be 10.