

42. For all real  $x$  and  $m$ , if  $(x - 1)(x + m) = x^2 + kx - m$ ,  
then  $k = ?$

F. 0

G. 1

H.  $m$

J.  $m + 1$

→ K.  $m - 1$

The  $k$  coefficient results from adding  
the  $x$  products together

54. If  $(x + m)^2 = x^2 + 12x + n$ , where  $m$  and  $n$  are integers, what is the value of  $n$ ?

- F. 36
- G. 30
- H. 24
- J. 18
- K. 12

Therefore

$$2xm = 12x$$
$$m = 6$$

$y$  could be  $-1$  so  $z = 62$

$$x^2 + 2xm + m^2 \text{ is same as}$$
$$x^2 + 12x + n$$

If  $m = 6$ , then  $n = 6^2$   
 $n = 36$

42. For all real  $x$  and  $m$ , if  $(x - 1)(x + m) = x^2 + kx - m$ ,  
then  $k = ?$

F. 0

G. 1

H.  $m$

J.  $m + 1$

→ K.  $m - 1$

The  $k$  coefficient results from adding  
the  $x$  products together

**59.** In the equation  $x^2 + mx + n = 0$ ,  $m$  and  $n$  are integers. The *only* possible value for  $x$  is  $-3$ . What is the value of  $m$  ?

- A.** 3
- B.**  $-3$
- C.** 6
- D.**  $-6$
- E.** 9