

26, 22, 28, 27, 30

22.  $h^2 - 8hk - 15k^2$  1, 15  
3, 5  
 ~~$(h + 3k)(h - 5k)$~~   
 prime

26.  $4r^2 + 8r + 3$  1, 3  
 ~~$(2r + 1)(2r + 3)$~~   
 $4r^2 + 6r + 2r + 3$   
 $4r^2 + 8r + 3$  ✓

27.  $6x^2 - 7xy - 3y^2$  3, 1  
 ~~$(2x - 3y)(3x + y)$~~  2, 3  
1, 6  
 $2 \cdot 1 \quad -3 \cdot 3 = -7$   
 $2 \quad -9$   
 $6x^2 + 2xy - 9xy - 3y^2$   
 $6x^2 - 7xy - 3y^2$  ✓

28.  $6s^2 + st - 5t^2$  5t, t  
 ~~$(6s - 5t)(s + t)$~~  6s, s  
3t, t  
 $6 \cdot 1 \quad -5 \cdot 1 = 1$   
 $+6 \quad -5$   
 $6s^2 + 6st - 5st - 5t^2$   
 $6s^2 + st - 5t^2$  ✓

30.  $2u^2 + uv - 2v^2$  7, 3  
1, 2  
 ~~$(2u + 7v)(u - 3v)$~~   
 $+2 \cdot 3 \quad -7 = 1$   
 $+6 \quad -7$   
 $2u^2 - 6uv + 7uv - 2v^2$   
 $2u^2 + uv - 2v^2$  ✓

1/26

Factor:

$$26. \quad 4r^2 + 8r + 3$$

$$3x + 5 = 13$$

$$\begin{array}{r} 3x = 8 \\ \hline 3 \end{array}$$

$$x = 8/3$$

$$x^2 = x + 30$$

$$x^2 - x = 30$$

$$A \cdot B = 0$$

$$A = 0 \quad B = 0$$

$$(x - 5)(x + 2) = 0$$

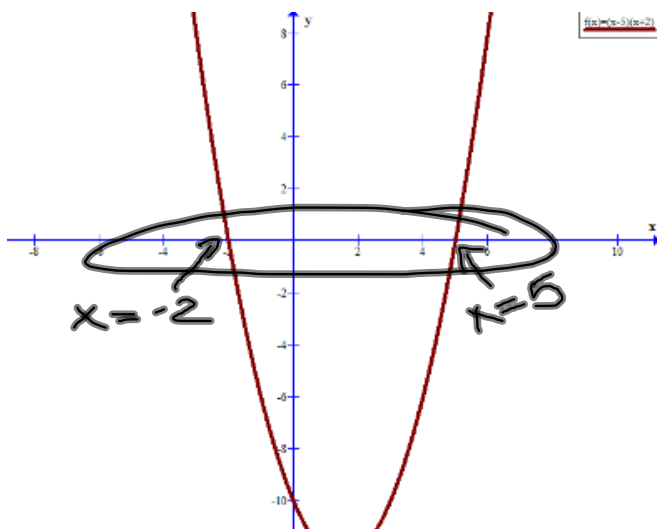
$$\begin{array}{r} x - 5 = 0 \\ +5 \quad +5 \\ \hline \end{array}$$

$$x = 5$$

$$\begin{array}{r} x + 2 = 0 \\ -2 \quad -2 \\ \hline \end{array}$$

$$x = -2$$

$$f(x) = (x - 5)(x + 2)$$



$$f(x) = (x-5)(x+2)$$
$$0 = (x-5)(x+2)$$
$$x = 5 \quad x = -2$$

$$(2c-1)(c+4)^2=0$$

$$(2c-1)(c+4)(c+4)=0$$

$$2c-1=0 \quad \underline{c+4=0} \quad \underline{c+4=0}$$

$$\frac{2c=1}{2}$$

$$\frac{-4}{-4} \quad \frac{-4}{-4}$$

$$c = -4 \text{ dr}$$

$$c = \frac{1}{2}$$

$$C = \frac{1}{2}, -4 \text{ dr}$$

↑  
this is a solution  
twice.  
DOUBLE  
ROOT!