

13, 14, 5, 6, 9

$$a^2 - b^2 = (a+b)(a-b)$$

5. $16k^2 - 1$

$a = 4k \quad b = 1$

$(4k-1)(4k+1)$

6. $121x^2 - 1$

$(11x-1)(11x+1)$

9. $16x^2 - 25$

$(4x-5)(4x+5)$

13.

$36p^2 - 49q^2$

$(6p-7q)(6p+7q)$

16. $p^3q - pq^3$

$pq \left(\frac{p^3q}{pq} - \frac{pq^3}{pq} \right)$

$pq(p^2 - 1)$

$pq(p-1)(p+1)$

15. $st^2 - s$

$s(t^2 - 1)$

$s(t-1)(t+1)$

$$1/20$$

10. $4h^2 - 81$
Factor

$$\rightarrow x^2 + 6x + 8$$

$$\rightarrow (x+a)(x+b)$$

$$x^2 + bx + ax + ab$$

$$x^2 + (a+b)x + ab$$

↗ First ↑ sum of 0 + 1 ↖ Last

$$x^2 + 6x + 8$$

$$(x+2)(x+4)$$

$$(x+4)(x+2)$$

$$x^2 + 2x + 4x + 8$$

$$x^2 + 6x + 8 \checkmark$$

1	8
2	4
4	2

$$y^2 - 14y + 13 \quad 1, 13$$
$$(y - 1)(y - 13)$$
$$y^2 - 13y - y + 13$$
$$y^2 - 14y + 13 \checkmark$$

$$a^2 - 14a + 15 \quad \begin{matrix} 1, 15 \\ 3, 5 \end{matrix}$$
$$\cancel{(a -) (a -)}$$

prime

← difference
between O+I

$$m^2 - 2m - 35$$

$$(m + 5)(m - 7)$$

$$\begin{array}{r} 5, 7 \\ \hline \cancel{1, 35} \end{array}$$

$$m^2 - 7m + 5m - 35$$

$$m^2 - 2m - 35 \checkmark$$

$$n^2 + 3n - 18$$

$$(n + 6)(n - 3)$$

$$\begin{array}{r} 1, 18 \\ 2, 9 \\ \hline 3, 6 \end{array}$$

$$n^2 - 3n + 6n - 18$$

$$n^2 + 3n - 18 \checkmark$$