

7, 8, 11, 12

$$7. \quad 4y^2 + 20y + 25$$

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

$$a = 2y \quad b = 5$$

$$(2y+5)^2$$

$$8. \quad 9s^2 - 24s + 16$$

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

$$a = 3s \quad b = 4$$

$$(3s-4)^2$$

$$11. \quad 121s^2 - 66st + 9t^2$$

$$(11s - 3t)^2$$

$$12. \quad 16x^2 + 40xy + 25y^2$$

$$(4x + 5y)^2$$



$$(a \pm b)^2$$

$$(a+b)(a-b)$$

$$a^2 - \cancel{ab} + \cancel{ab} - b^2$$

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

$$16x^2 - 4$$

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

$$36x^2 - 1$$

$$(6x-1)(6x+1)$$

$$25x^2 - 16a^4$$

$$(5x-4a^2)(5x+4a^2)$$

$$16x^2 - 4$$

$$4(4x^2 - 1)$$

$$4(2x - 1)(2x + 1)$$

$$4x^2 - 1$$

$$(2x - 1)(2x + 1)$$

$$3x^5 - 48x$$

$$\text{gcf} = 3x$$

$$3x(x^4 - 16)$$

$$3x(x^2 - 4)(x^2 + 4)$$

this
can be
factored

this can not

$$3x(x - 2)(x + 2)(x^2 + 4)$$

$$a^2 + b^2$$

$$x^2 ~~+~~ 2^2$$

$$\begin{aligned} & \left(\overset{-}{x} - 2 \right) \left(\overset{+}{x} + 2 \right) = (x + 2)^2 \\ & \quad \quad \quad \begin{array}{l} x^2 + 2x - 2x + 4 \\ x^2 + 4x + 4 \end{array} \end{aligned}$$