* Factor $24x^7y^4 - 36x^5y^6 + 12x^8y^3$

(Recall: Factor 14 → (2)(7))

(___)(___) = $24x^7y^4 - 36x^5y^6 + 12x^8y^3$

Find GCF of each term

Find GCF of

$24x^7y^4$ and $36x^5y^6$ and $12x^8y^3$

$2^3 \cdot 3 \cdot x^7 \cdot y^4$ $\quad 2^2 \cdot 3^2 \cdot x^5 \cdot y^6$ $\quad 2^2 \cdot 3 \cdot x^8 \cdot y^3$

GCF = $2^2 \cdot 3 \cdot x^5 \cdot y^3 = 12x^5y^3$

$(12x^5y^3)(2x^2y^1 - 3y^3 + 1x^3)$

polynomial

$= (24x^7y^4 - 36x^5y^6 + 12x^8y^3)$ ✓

$(12x^5y^3)(2x^2y - 3y^3 + 1x^3)$

GCF