Factor completely.

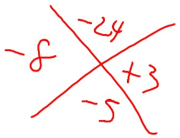
Turn this into an equation. Multiply both sides by 12 to clear the denominators. Factor the original side. Finish by moving the 12 back by dividing.

$$12\left(\frac{7}{4}b^2 - \frac{35}{12}b - \frac{14}{3}\right) = y\cdot 12$$

$$21b^2 - 35b - 56 = y\cdot 12$$

$$7(3b^2 - 5b - 8)$$

$$\boxed{\frac{7}{12}(b+1)(3b-8) = \frac{12y}{12}}$$

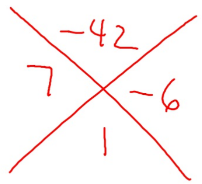


	b	$+1$
$3b$	$3b^2$	$+3b$
-8	$-8b$	-8

factor.

Our book calls this factoring using a quadratic pattern.

$$c^{10} + c^{5} - 42$$



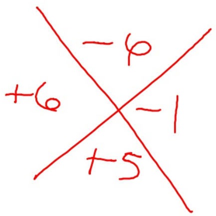
	c^5	$+7$
c^5	c^{10}	$+7c^5$
-6	$-6c^5$	-42

$$(c^5+7)(c^5-6)$$

factor.

$$2p^8 + 5p^4 - 3$$

$$(2p^4-1)(p^4+3)$$



	p^4	$+3$
$2p^4$	$2p^8$	$+6p^4$
-1	$-1p^4$	-3

$$2p^8 + p^4 - 3 = (p^4-1)(2p^4+3)$$

$$(p^2+1)(p^2-1)$$

$$(p^2+1)(p+1)(p-1)(2p^4+3)$$