

Factor each completely.

1. $-48p^2q^5r - 42p^4q^3r^3$

$$-6p^2q^3r(8q^2 + 7p^2r^2)$$

4m	m	-3
7	4m ²	-12m
	7m	-21

$$(4m+7)(m-3)$$

2. $4m^2 - 5m - 21$

4m	m	-3
7	4m ²	-12m
	7m	-21

$$(4m+7)(m-3)$$

3. $k^2 + 10k - 24$

$$\begin{array}{c} \cancel{-24} \\ \cancel{-2} \quad \cancel{12} \\ \cancel{10} \\ k \boxed{k^2 \quad -2k} \quad (k-2)(k+2) \\ \hline 12 \quad \cancel{-24} \end{array}$$

4. $6c^3 + 6c^2 - 120c$

$$6c(c^2 + c - 20)$$

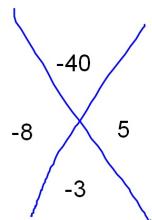
$$6c(c+5)(c-4)$$

$$\begin{array}{c} \cancel{-20} \\ \cancel{5} \quad \cancel{-4} \\ \cancel{1} \end{array}$$

5. Find the x-intercepts of this quadratic by factoring:

$$y = 2x^2 - 3x - 20 = (2x + 5)(x - 4)$$

x-int are +4 and -5/2



$$\begin{array}{c} x \quad -4 \\ \hline 2x \quad 2x^2 \quad -8x \\ +5 \quad 5x \quad -20 \end{array}$$