

1. $4w^2 + 4w - 35$

2. $12c^2 + 52c - 9$

3. $48x^3 + 52x^2 - 56x$

4. $45m^4 + 150m^3 - 120m^2$

Answers

1. $4w^2 + 4w - 35$ No GCF

2. $12c^2 + 52c - 9$ No GCF

$\begin{array}{c} -140 \\ 14 \times -10 \\ +4 \end{array}$

$2w$	$+7$
$4w^2$	$+14w$
-5	-35

$(2w+7)(2w-5)$

$\begin{array}{c} -108 \\ +54 \times -2 \\ +52 \end{array}$

$6c$	-1
$12c^2$	$-2c$
$+9$	-9

$(6c-1)(2c+9)$

3. $48x^3 + 52x^2 - 56x$ GCF = $4x$

4. $45m^4 + 150m^3 - 120m^2$ GCF = $15m^2$

$4x(12x^2 + 13x - 14)$

$15m^2(3m^2 + 10m - 8)$

$\begin{array}{c} -168 \\ +21 \times -8 \\ +13 \end{array}$

$4x$	$+7$
$12x^2$	$+21x$
-2	-14

$4x(4x+7)(3x-2)$

$\begin{array}{c} -24 \\ 12 \times -2 \\ +10 \end{array}$

m	$+4$
$3m^2$	$12m$
-2	-8

$15m^2(m+4)(3m-2)$