

Name: .....

Date: ..... Score: .....

## Factoring out the GCF

Take the common factor out of each expression

1  $15x^3 - 25x^2 + 55x$

2  $36x^3 + 63x^2 - 27x$

3  $25x^{12} - 35x^6$

4  $-6p^5 - 6p^4$

5  $72x^5 - 72x^3 - 80x^2$

6  $6x^2yz + 2xy^2z - 4xyz$

7  $-16p^3q^2 + 24p^2q^3 - 32p^4q$

8  $7wx(a - 9) - 10w(9 - a)$

9  $36w^5 + 40w^4 - 160w^3 - 20w^2$

10  $bc(m + 10) - 5b(10 + m)$

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## Factoring out the GCF

### Answers

1  $15x^3 - 25x^2 + 55x$

$5x(3x^2 - 5x + 11)$

2  $36x^3 + 63x^2 - 27x$

$9x(4x^2 + 7x - 3)$

3  $25x^{12} - 35x^6$

$5x^6(5x^6 - 7)$

4  $-6p^5 - 6p^4$

$-6p^4(p + 1)$

5  $72x^5 - 72x^3 - 80x^2$

$8x^2(9x^3 - 9x - 10)$

6  $6x^2yz + 2xy^2z - 4xyz$

$2xyz(3x + y - 2)$

7  $-16p^3q^2 + 24p^2q^3 - 32p^4q$

$-8p^2q(2pq - 3q^2 + 4p^2)$

8  $7wx(a - 9) - 10w(9 - a)$

$(a - 9)(7wx + 10w)$

9  $36w^5 + 40w^4 - 160w^3 - 20w^2$

$4w^2(9w^3 + 10w^2 - 40w - 5)$

10  $bc(m + 10) - 5b(10 + m)$

$(m + 10)(bc - 5b)$