

Name : _____

Score : _____ Date : _____

Factoring by Grouping

Factor each Completely.

1 $x^2 + 2x + 5x + 10$

2 $49x^3 - 35x^2 + 56x - 40$

3 $28x^4 + 112x^3 - 21x^2 - 84x$

4 $x^3 - 2x^2 + 5x - 10$

5 $6x^3 + 3x^2 + 8x + 4$

6 $15xy + 25vy + 30vx + 18x^2$

7 $5y^2 + 24x + 4y + 30xy$

8 $25v^3 + 5v^2 + 30v + 6$

9 $x^3 - x^2 + 2x - 2$

10 $4xy - 24y - x + 6$

Name : _____

Score : _____ Date : _____

Factoring by Grouping

Answers

1 $x^2 + 2x + 5x + 10$

2 $49x^3 - 35x^2 + 56x - 40$

$(x + 2)(x + 5)$

$(7x^2 + 8)(7x - 5)$

3 $28x^4 + 112x^3 - 21x^2 - 84x$

4 $x^3 - 2x^2 + 5x - 10$

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

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

5 $6x^3 + 3x^2 + 8x + 4$

6 $15xy + 25vy + 30vx + 18x^2$

$(3x^2 + 4)(2x + 1)$

$(3x + 5v)(5y + 6x)$

7 $5y^2 + 24x + 4y + 30xy$

8 $25v^3 + 5v^2 + 30v + 6$

$(6x + y)(5y + 4)$

$(5v^2 + 6)(5v + 1)$

9 $x^3 - x^2 + 2x - 2$

10 $4xy - 24y - x + 6$

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

$(x - 6)(4y - 1)$