

Math 94 Review for Test 4: Sections 6.1 – 6.5

Factor out the greatest common factor (GCF):

1. (a) $b^3 - 3b^2$ (b) $6x^3 - 2x$

2. $4x^3y - 6xy^2 + 4xy$

Factor by grouping:

3. $x^2 - 5x + 3x - 15$

4. $6x^2 - 3x - 2x + 1$

Factor each expression completely, if possible:

5. $x^2 - 8x + 12$

6. $r^2 - rs - 12s^2$

7. $4xy^2 - 10x^2y$

8. $2x^3 + 8x^2 + 6x$

9. $x^2 - 49$

10. $9y^2 - 1$

11. $3x^2 - 12$

12. $4x^2 + 9x - 9$

13. $4x^2 + 20x + 25$

Math 94 Review for Test 4: Sections 6.1 – 6.5 ANSWERS

1. (a) $b^2(b-3)$ (b) $2x(3x^2-1)$ 2. $2xy(2x^2-3y+2)$
3. $(x-5)(x+3)$ 4. $(2x-1)(3x-1)$ 5. $(x-2)(x-6)$ 6. $(r-4s)(r+3s)$
7. $2xy(2y-5x)$ 8. $2x(x+1)(x+3)$ 9. $(x+7)(x-7)$ 10. $(3y+1)(3y-1)$
11. $3(x+2)(x-2)$ 12. $(x+3)(4x-3)$ 13. $(2x+5)(2x+5)$ or $(2x+5)^2$