

MAT 055 Practice Test Chapter 13

All test answers are to be in simplest form. A calculator may be used.

Cell phones, iPads, and other electronic devices with scanning or photo ability may NOT be used.

No notes, no books, no homework may be used while taking this test.

Identify the greatest common factor for the expression.

Then factor the expression.

1) $6x^2y + 3xy - 6y^2$
GCF is _____
Factored Expression _____

2) $13y^3 - 52y^2$
GCF is _____
Factored Expression _____

3) $20y^4 + 8y^3 + 14y^2 + 2y$
GCF is _____
Factored Expression _____

Factor the polynomial completely. If the polynomial cannot be factored, write "prime."

- 4) $x^3 + 2x^2 + 6x + 12$
- 5) $4y^3 - 12y^2 + 5y - 15$
- 6) $x(x + 7) - 3(x + 7)$
- 7) $x^3 + 8x^2 - 6x - 48$
- 8) $x^2 + 11x + 18$
- 9) $y^2 - 11y + 30$
- 10) $n^2 + 2n - 63$
- 11) $z^2 - 2z - 15$
- 12) $9x^2 + 20x + 4$
- 13) $9x^2 - 44x + 32$
- 14) $7x^2 - 41x - 56$
- 15) $8x^2 + 36x - 20$

Factor the polynomial completely. If the polynomial cannot be factored, write "prime."

- 16) $x^2 - 144$
- 17) $x^2 + 36$
- 18) $64y^2 - 81$
- 19) $100 - z^2$
- 20) $x^2 + 30x + 225$
- 21) $y^2 - 12y + 144$
- 22) $5x^2 + 30x + 45$
- 23) $64x^2 - 112x + 49$
- 24) $z^3 + 343$
- 25) $x^3 - 512$
- 26) $125y^3 + 1$

Solve the equation.

- 27) $y(y + 17) = 0$
- 28) $(3y - 8)(7y - 6) = 0$
- 29) $x^2 - 3x = 0$
- 30) $36y^2 - 49 = 0$
- 31) $6x^2 = 41x + 7$
- 32) $x(x - 6) = 55$