

MAT 050 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 GCF. Then factor out the GCF from the polynomial.

1) $3x^2 + 6x$ GCF = _____
Factored Polynomial = _____

2) $8x^3 + 10x^2 - 2x$ GCF = _____
Factored Polynomial = _____

3) $20y^4 + 8y^3 + 14y^2 + 2y$
GCF = _____
Factored Polynomial = _____

4) $6x^2y + 3xy - 6y^2$
GCF = _____
Factored Polynomial = _____

Factor by grouping.

5) $x^3 + 2x^2 + 5x + 10$

6) $x^3 + 8x^2 - 6x - 48$

7) $ax - bx + ay - by$

8) $5x^2(x - 5) + 6(x - 5)$

Factor the polynomial completely.

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

9) $x^2 + 11x + 18$

10) $y^2 - 11y + 30$

11) $y^2 - 12y + 144$

12) $21x^4 - 7x^3$

Factor the polynomial completely.

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

13) $x^2 + 30x + 225$

14) $x^2 - 144$

15) $x^3 + 6x^2 - 40x$

16) $n^2 + 2n - 63$

17) $z^2 - 2z - 15$

18) $2x^2 - 10x + 12$

19) $100 - z^2$

20) $12x^3 + 12x^2 - 3x$

21) $49m^2 - 121n^2$

22) $x^2 + 36$

23) $a^2 - 2ab + b^2$

24) $4y^5 + 16y^4 + 2y^3 + 8y^2$