

Name: _____

Dividing Polynomials Classwork

Show all of your work to receive full credit and to be eligible for partial credit. ☺

Divide the trinomials by the monomials. The first one is started for you.

1. $20x^3 - 4x^2 + 16x \div 2x$

2. $6x^3 + 12x^2 - 21x \div 3x$

$$\frac{20x^3 - 4x^2 + 16x}{2x} = \frac{20x^3}{2x} - \frac{4x^2}{2x} + \frac{16x}{2x}$$

3. $16x^3 - 8x^2 - 24x \div 4x$

4. $15x^3 - 30x^2 + 10x \div 5x$

5. $9x^3 + 15x^2 + 18x \div 3x$

6. $12x^3 - 20x^2 + 4x \div 4x$

Divide the trinomials by the binomials. The first one has been started for you. Some may have a remainder.

7. $x^2 + 6x + 5 \div x + 5$

8. $x^2 + 9x + 14 \div x + 2$

$$x+5 \overline{) x^2 + 6x + 5}$$

9. $x^2 + 7x + 10 \div x + 5$

10. $x^2 + 2x - 15 \div x - 3$

11. $x^2 - 4x + 3 \div x - 1$

12. $x^2 - 7x - 18 \div x + 2$

13. $2x^2 - 7x + 3 \div x - 3$

14. $3x^2 + 14x - 5 \div x + 5$

15. $3x^2 + 8x + 4 \div x + 2$

16. $6x^2 - x - 5 \div x - 1$

17. $5x^2 - 6x + 1 \div 5x - 1$

18. $2x^2 + 5x - 63 \div 2x - 9$

19. $3x^2 - 17x + 10 \div 3x - 2$

20. $10x^2 - 3x - 27 \div 2x + 3$

21. $6x^2 - 5x - 4 \div 3x - 4$

22. $4x^2 + 8x + 3 \div 2x + 3$

$$23. \ x^2 + 3x + 5 \div x + 1$$

$$24. \ x^2 + 3x - 10 \div x - 2$$

$$25. \ x^2 + 5x + 6 \div x + 6$$

$$26. \ x^2 + 3x - 4 \div x - 1$$

$$27. \ 2x^2 - 5x - 1 \div x - 3$$

$$28. \ 4x^2 + 2x - 3 \div 2x - 1$$

$$29. \ 2x^2 + 5x - 7 \div 3x - 2$$

$$30. \ 9x^2 + 6x + 8 \div 3x - 4$$

Divide the trinomials by the binomials. Be sure to insert missing terms if necessary.

$$31. \ 3x^2 - 2 \div 3x + 3$$

$$32. \ 4x^2 - 5 \div 2x + 5$$