

Unit 3 Class-work #1 Sections 3.1-3.2

This class-work assignment is being graded based on 70% Accuracy and 30% completion. You MUST SHOW ALL YOUR WORK on a separate sheet; place your answers on this sheet.

NO WORK = NO CREDIT!

Simplify each expression, write it in Standard Form, and then classify it based on it's degree and number of terms.

1) $(4x^4 - 8x - 10x^2) + (15x^2 + 13x^4 + 16x)$

2) $(9x^3 + 5 - 14x^2) - (-14x - 5x^2 + 8x^3) + (-10 + 5x - 3x^2)$

3) $11(10x^2 + x - 2)$

4) $(a - 8)(12a + 8)$

5) $(6k + 10)(4k + 5)$

6) $(r + 4)^2$

$$7) (20a - 20)(20a + 20)$$

$$8) (x + 1)(8x^2 - 6x + 12)$$

$$9) (8k^2 - k + 5)(5k^2 + 11k + 7)$$

Factor each completely.

$$10) 6p^2 - 30p$$

$$11) 6n^2 + 12n - 90$$

$$12) 5n^2 + 34n + 24$$

$$13) 5x^2 + 19x - 30$$

$$14) 3k^2 - 16k + 20$$

$$15) 2k^2 - k - 36$$

16) $4n^2 - 12n + 9$

17) $9n^2 - 64$

18) $30b^3 + 27b^2 - 40b - 36$

19) $24x^4 + 60x^3 + 96x^2 + 240x$

Divide.

20) $(20n^4 + 5n^3 + 5n^2) \div 10n^3$

21) $(70n^3 - 49n^2 - 111n - 21) \div (10n + 3)$

22) $(4b^4 - 4b^3 + 36b^2 - 36b) \div (4b - 4)$

23) $(7p^4 + 85p^3 - 120p^2 + 85p - 50) \div (7p - 6)$

24) $(7p^5 - 47p^4 + 4p^3 + 159p^2 - 192p + 144) \div (7p - 12)$

$$25) (11n^3 + 90n^2 + 19n + 24) \div (n + 8)$$

$$26) (13x^4 - 26x^3 - 13x + 33) \div (x - 2)$$

$$27) (p^4 + 12p^3 + 14p^2 - 45p - 18) \div (p + 3)$$

$$28) (9p^4 + 116p^3 - 15p^2 - 27p - 13) \div (p + 13)$$

$$29) (18 + x^5 - 3x + 4x^4 - 96x^3) \div (-8 + x)$$

$$30) (x^5 - 18x^4 + 70x^3 + 22x^2 - 47x - 78) \div (x - 6)$$