

Secondary Math 2 Homework

Name _____

1.3/Unit 1 Review

Date _____ Period _____

Find each product.

1) $(p - 4)(5p + 3)$

2) $(8r - 3)(3r - 7)$

3) $(4n - 5)(2n + 3)$

4) $(x - 3)(4x + 4)$

5) $(7n + 6)(8n - 2)$

6) $(3p - 2)(7p + 5)$

7) $(2n + 7)(3n - 8)$

8) $(r + 7)(8r + 1)$

9) $(7b^2 + 4b + 6)(6b - 3)$

10) $(6k^2 + 7k + 2)(k + 7)$

11) $(x^2 + 5x - 6)(7x + 5)$

12) $(3v + 8)(3v^2 - 6v - 4)$

$$13) (k - 6)(2k^2 + 3k - 6)$$

$$14) (7b - 4)(6b^2 - 8b - 1)$$

Simplify each expression.

$$15) (4 - 6x^2 + 3x^4) + (5x^4 + 7 - 8x^2)$$

$$16) (7x^4 + 8 - 4x^3) + (4 - x^3 - 8x^4)$$

$$17) (4 - 8n^2 - 4n^4) - (3n^2 - 4n^4 - 1)$$

$$18) (7k + 7k^2 - 3) - (6 - 7k^2 - 2k)$$

$$19) (7n^4 + 6n^3 - 5n) - (3n + 6n^4 + n^3)$$

$$20) (5a^3 + 8a - 1) + (4 + 3a + 5a^3)$$

Simplify. Your answer should contain only positive exponents.

$$21) 2x^{-3}y^{-1} \cdot x^{-3}y^{-1}$$

$$22) x^4y^3 \cdot 4y^3$$

$$23) \frac{4p^{-2} \cdot 2p}{2p^3}$$

$$24) \frac{2m \cdot 2m^3}{4m^2}$$

$$25) x^{\frac{5}{3}} \cdot 4x^{\frac{5}{3}}$$

$$26) 4x \cdot 4x^{\frac{3}{2}} \cdot 3x$$

$$27) \frac{4x^{-\frac{1}{3}} \cdot x^{\frac{1}{4}}}{3x^{\frac{2}{3}}}$$

$$28) \frac{4b^{-1}}{4b^{\frac{5}{4}} \cdot 4b^{\frac{5}{4}}}$$

$$29) \frac{2x^{-1}}{3x^{\frac{2}{3}} \cdot 3x^2}$$

$$30) \frac{4r^2}{4r^{-\frac{2}{3}} \cdot 2r}$$

$$31) \left(\frac{5}{v^4}\right)^{\frac{1}{2}} \cdot v^{\frac{1}{2}}$$

$$32) \left(\frac{1}{b^2}\right)^{-2} \cdot (b^2)^{\frac{2}{3}}$$

$$33) (x^{-2})^{-1} \cdot \left(\frac{3}{x^4}\right)^{-\frac{4}{3}}$$

$$34) v^{\frac{7}{4}} \cdot \left(\frac{5}{v^4}\right)^{-2}$$

With each polynomial, name the type, the degree, how many terms, all coefficients, and all constants.

35) $3x^2 + 5x - 2$

Type:

Degree:

Number of terms:

Coefficients:

Constants:

36) $6x + 1$

Type:

Degree:

Number of terms:

Coefficients:

Constants:

37) $-3x^5 + 2x^2 - 5$

Type:

Degree:

Number of terms:

Coefficients:

Constants:

38) $7x^4 + 12x^3 - x + 4$

Type:

Degree:

Number of terms:

Coefficients:

Constants:

39) $-x$

Type:

Degree:

Number of terms:

Coefficients:

Constants:

40) $4x^3 - 2x$

Type:

Degree:

Number of terms:

Coefficients:

Constants:

Radicals and Exponents Review

Write each expression in radical form.

1) $(5n)^{\frac{1}{3}}$

2) $(10b^2)^{\frac{1}{6}}$

3) $x^{\frac{2}{3}}$

4) $(6b)^{\frac{1}{2}}$

5) $(3x^4)^{\frac{1}{2}}$

6) $(2x^3)^{\frac{1}{3}}$

7) $(8x^3)^{\frac{1}{5}}$

8) $(3x^7)^{\frac{1}{2}}$

Write each expression in exponential form.

9) $(\sqrt[4]{5k})^7$

10) $(\sqrt{6n})^3$

11) $\sqrt[4]{3a}$

12) $(\sqrt{a})^5$

13) $\sqrt{5x^2}$

14) $\sqrt{12x^3}$

15) $\sqrt[3]{6x^2}$

16) $\sqrt[5]{3x^3}$