

Unit 8 Workday Review

Date _____ Period _____

Find the GCF of each.

1) $15x^3$ and $24x^7$

2) $14x^4y^2$ and $24x^3y^5$

3) $9x^2$ and $49y^2$

4) $36xy$ and $45x^2y^2$

Factor the GCF out of each expression.

5) $15r^2 - 5$

6) $-6b + 9$

7) $2n^2 + 8n^5 - 4n^3$

8) $15x + 3x^2 + 12x^5$

Factor each completely.

9) $x^2 + 10x + 25$

10) $b^2 - 4b - 12$

11) $b^2 - 4b - 60$

12) $2x^3 + 10x^2 - 48x$

13) $2x^2 - 15x + 18$

14) $5x^2 - 4x - 9$

15) $5x^2 - 37x - 72$

16) $9x^2 + 51x - 270$

17) $3x^4 - 48x^2$

18) $9n^2 - 16$

19) $16p^2 + 8p + 1$

20) $16m^2 - 8m + 1$

21) The area of a rectangular field of corn can be expressed by the polynomial $5x^2 + 18x + 16$. Find the possible dimensions of the field. (Find polynomials that represent the length and width of the field).

22) The area of a rectangular sandbox can be represented by the polynomial $2x^2 + 15x + 25$. Find the polynomials to represent the dimensions of the field.

23) The area of a rectangular plot of land can be represented by the polynomial $36x^3 - 8x^2$. Find the polynomials that represent the dimensions of the field.

24) The area of a rectangular classroom can be represented by the polynomial $x^2 + x - 12$. Find the polynomials that represent the dimensions of the field.