

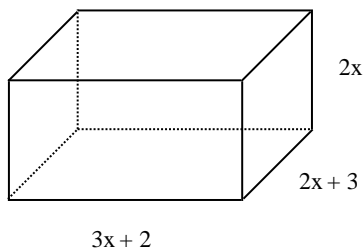
Chapter 8 Review due on the day of the test. REMEMBER: NO WORK, NO CREDIT

- Review will not be graded unless answers are written on separate paper.
- Eligibility to retest: complete accurate review, all homework and missing assignments must be turned in prior to retesting. Tutoring is required

1. Find the prime factorization of 504.
2. Find the GCF of
3. The brass section in a marching band has 24 trombone players and 56 trumpet players. The band director wants to arrange them into equal rows that have as many musicians as possible. However, all of the musicians in each row must play the same instrument. How many rows will there be?
4. The amount of paint needed to cover a wall is proportional to its area. The wall is rectangular and has an area of $4z^2 + 2z$ square meters. Factor this polynomial to find possible expressions for the length and width of the wall. (Assume the factors are polynomials.)

Factor the polynomials:

5. $12y^3 + 33y^2 - 6y$.
6. $5(x - 2) - 9x(x - 2)$.
7. $15x^3 - 6x^2 - 25x + 10$ by grouping.
8. $4x^3 - 16x^2 + 12 - 3x$.
9. $x^2 + 101x + 100$.
10. $a^2 + 14a + 48$.
11. $r^2 + r - 20$.
12. $x^4 + 50x^2 + 625$.
13. $3x^2 + 2x - 8$.
14. $2x^2 + 7x + 6$.
15. $42x^2 - x - 30$.
16. $-3x^2 + 26x - 16$
17. $w^2 + 18w + 77$
- 18.
19. $k^2 + kf - 2f^2$
20. $x^2 - x - 42$
21. $r^2 - 49$
22. $4x^2 - 81y^2$
23. Find all possible values of b such that $4x^2 + bx + 3$ can be factored.
24. Write a polynomial that represents the volume of the prism using x .



Simplify

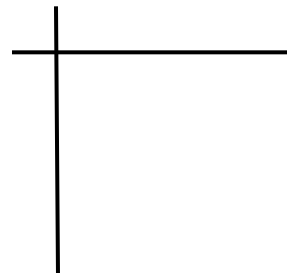
25. $(-7x - 5x^4 + 5) - (-7x^4 - 5 - 9x)$
26. $(4u^3 + 4u^2 + 2) + (6u^3 - 2u + 8)$
27. $8x^2(4x^2 + 4y^6)$
28. The Johnsons want to cover their backyard with new grass. Their backyard is rectangular, with a length of $3x - 5$ feet and a width of $4x - 10$ feet. However, their rectangular swimming pool, along with its surrounding patio, has dimensions of $x + 8$ by $x - 2$ feet. What is the area of the region of the yard that they want to cover with new grass?



29. Multiply and model

30.

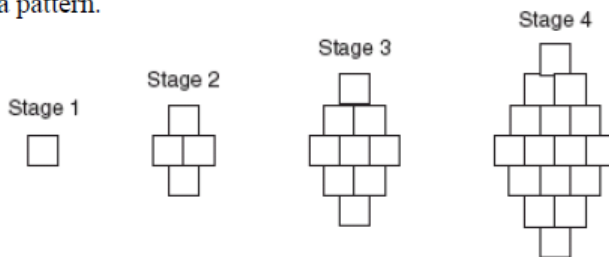
use this form to fill in binomials and tiles



31. The blocks below are arranged in sequence to show a pattern.

Which expression can be used to determine the number of blocks at Stage n ?

- F \sqrt{n}
- G $(n - 1) + 1$
- H $2n$
- J n^2



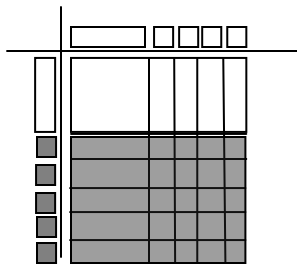
32. What is the slope of a line that contains the coordinate points?

*Review how to solve systems of equations by graphing, elimination, and substitution.
Review exponent rules and how to simplify an exponential monomial.*

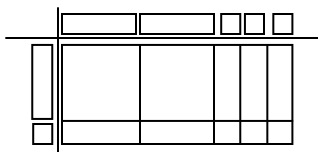
Chapter 8 Exam Review

Answer Section

- 1.
- 2.
3. $3y(4y^2 + 11y - 2)$
4. There will be 10 rows.
5. $2z(2z + 1)$; possible dimensions: $2z$ meters by $(2z + 1)$ meters
6. $(x - 2)(5 - 9x)$
7. $(5x - 2)(3x^2 - 5)$
8. $(x - 4)(4x^2 - 3)$
9. $(x + 1)(x + 100)$
10. $(a + 6)(a + 8)$
11. $(r - 4)(r + 5)$
12. $(x^2 + 25)^2$
13. $(x + 2)(3x - 4)$
14. $(x + 2)(2x + 3)$
15. $(6n + 5)(7n - 6)$
16. $-(x - 8)(3x - 2)$
17. $(w + 7)(w + 11)$
- 18.
19. $(k + 2f)(k - f)$
20. $(x - 7)(x + 6)$
21. $(r - 7)(r + 7)$
22. $(2x + 9y)(2x - 9y)$
23. 7, 8, 13
24. $12x^3 + 26x^2 + 12x$
25. $2x^4 + 2x + 10$
26. $10u^3 + 4u^2 - 2u + 10$
27. $32x^4 + 32x^2y^6$
28. $11x^2 - 56x + 66 \text{ ft}^2$
- 29.



30.



31. J
32. $m = -2$