Simplify.

1. 2x (x – 4) 2. 3c (c2 – 2c – 4)

3. ( 3x + 5)( 3x – 5) 4. (2x – 5)(3x + 3)

Factor the GCF.

5. 20, 28 6. 30, 60

7. 12x, 48x2 8. 3x3, 15x2

Factor out the GCF from the polynomial.

9. 40x – 30 10. 15x2 – 12x

Factor. ( Be sure to check your answers)

11. x2 – 36 12. X2 - 121

Factor.

13. x2 + 14x + 48 14. x2 - 13x + 42

15. x2 - 16x + 63 16. x2 + x - 20

17. 6x2 + x - 2 18. 6x2 - 4x - 16

19. 3x2 + 21x + 30 20. 2x2 + 14x + 24

21. The floor of a rectangular cage has a length 4 feet greater than its width, w. James will increase both dimensions of the floor by 2 feet. Which equation represents the new area, N, of the floor of the cage?

22. Two times Antonio’s age plus three times Sarah’s age equals 34. Sarah’s age is also five times Antonio’s age. How old is Sarah?