



Questions 12 through 19 refer to the following:

For the given expression, write an equivalent expression by factoring out the greatest common factor:

12)  $32a^2b - 40ab$

**Answer:** \_\_\_\_\_

13)  $3x^2 + 6x + 15$

**Answer:** \_\_\_\_\_

14)  $60cz - 24z^3$

**Answer:** \_\_\_\_\_

15)  $15p^2q + 10pq^2$

**Answer:** \_\_\_\_\_

16)  $62p^2q^3 - 93p^3q^2$

**Answer:** \_\_\_\_\_

17)  $128x^2y^{10}z - x^2y^{10}$

**Answer:** \_\_\_\_\_

18)  $18y^3 - 12y^2 + 6y$

**Answer:** \_\_\_\_\_

19)  $r(p - q) + s(p - q)$

**Answer:** \_\_\_\_\_

Questions 20 through 23 refer to the following:

Factor the given polynomial:

20)  $p^2 - 100$

**Answer:** \_\_\_\_\_

21)  $49p^2 - 9q^2$

**Answer:** \_\_\_\_\_

22)  $81 - 4x^2$

**Answer:** \_\_\_\_\_

23)  $x^4 - 25$

**Answer:** \_\_\_\_\_

Questions 24 through 29 refer to the following:

Factor the given polynomial completely:

24)  $7x^2 - 7$

**Answer:** \_\_\_\_\_

25)  $4n^3 - 49n$

**Answer:** \_\_\_\_\_

26)  $27 - 3x^2$

**Answer:** \_\_\_\_\_

27)  $100p^2 - 36q^2$

**Answer:** \_\_\_\_\_

28)  $3z^2 - 75$

**Answer:** \_\_\_\_\_

29)  $63t^2 - 7$

**Answer:** \_\_\_\_\_

1) C    2) D    3) C    4) A    5) D

6) B    7) A    8) D    9) B    10) B

11) D

12)  $8ab(4a - 5)$

13)  $3(x^2 + 2x + 5)$

14)  $12z(5c - 2z^2)$

15)  $5pq(3p + 2q)$

16)  $31p^2q^2(2q - 3p)$

17)  $x^2y^{10}(128z - 1)$

18)  $6y(3y^2 - 2y + 1)$

19)  $(p - q)(r + s)$

20)  $(p + 10)(p - 10)$

21)  $(7p + 3q)(7p - 3q)$

22)  $(9 + 2x)(9 - 2x)$

23)  $(x^2 + 5)(x^2 - 5)$

24)  $7(x + 1)(x - 1)$

25)  $n(2n + 7)(2n - 7)$

26)  $3(3 + x)(3 - x)$

27)  $4(5p + 3q)(5p - 3q)$

28)  $3(z + 5)(z - 5)$

29)  $7(3t + 1)(3t - 1)$