

## CHAPTER 8 FINAL EXAM REVIEW ANSWERS

1)  $3 \cdot 3 \cdot 7 = 3^2 \cdot 7$

2)  $3 \cdot 3 \cdot 5 = 3^2 \cdot 5$

3)  $2 \cdot 5 \cdot 7$

4) 8

5) 20

6) 24

7)  $2x^2$

8)  $4x^3$

9)  $3x^3$

$(15x^3 - 6x^2) + (-25x + 10)$   
10)  $3x^2(5x - 2) - 5(5x - 2)$   
 $(3x^2 - 5)(5x - 2)$

$(12x^3 - 6x^2) + (24x - 12)$   
 $6x^2(2x - 1) + 12(2x - 1)$   
11)  $(6x^2 + 12)(2x - 1)$   
 $6(x^2 + 12)(2x - 1)$

$(12x^3 - 6x^2) + (24x - 12)$   
 $6x^2(2x - 1) + 12(2x - 1)$   
12)  $(6x^2 + 12)(2x - 1)$   
 $6(x^2 + 12)(2x - 1)$

13)  $(r - 8)(r + 2)$

14)  $(p - 6)(p + 5)$

15)  $(b + 5)(b - 2)$

$(2x^2 + 10x) + (3x + 15)$   
16)  $2x(x + 5) + 3(x + 5)$   
 $(2x + 3)(x + 5)$

$(5x^2 - 10x) + (-3x + 6)$   
17)  $5x(x - 2) - 3(x - 2)$   
 $(5x - 3)(x - 2)$

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$$(5x^2 - 15x) + (-2x + 6)$$

$$18) 5x(x - 3) - 2(x - 3)$$

$$(5x - 2)(x - 3)$$

$$19) (5a^2 - 9)(5a^2 + 9)$$

$$20) (9s + 7y^2)(9y - 7y^2)$$

$$21) (7a^3 - 3)(7a^3 + 3)$$

$$2x(6x^2 + 11x + 3)$$

$$22) (6x^2 + 9x) + (2x + 3)$$

$$3x(2x + 3) + 1(2x + 3)$$

$$2x(3x + 1)(2x + 3)$$

$$3x(10x^2 + 9x + 2)$$

$$(10x^2 + 5x) + (4x + 2)$$

$$23) 5x(2x + 1) + 2(2x + 1)$$

$$(5x + 2)(2x + 1)$$

$$5x(5x + 2)(2x + 1)$$

$$2x(10x^2 + 17x + 3)$$

$$(10x^2 + 15x) + (2x + 3)$$

$$24) 5x(2x + 3) + 1(2x + 3)$$

$$(5x + 1)(2x + 3)$$

$$2x(5x + 1)(2x + 3)$$