

**MA90 Exercises for section 6.4 The Difference of Two Squares & Other Special Cases**

**Short Answer**

1. Factor.

$$x^2 - 49$$

.

2. Factor.

$$24x^2 - 54$$

.

3. Factor.

$$3x^2 - 75$$

.

4. Factor.

$$x^2 - 2x + 1$$

.

Name: \_\_\_\_\_

ID: A

5. Factor.

$$a^2 + 16a + 64$$

.

6. Factor.

$$25a^2 - 40a + 16$$

.

7. Factor.

$$x^2 + 12xy + 36y^2$$

.

8. Factor.

$$9a^2 - 6ab + b^2$$

.

Name: \_\_\_\_\_

ID: A

9. Factor by first factoring out the greatest common factor.

$$2x^2 + 24xy + 72y^2$$

10. Factor by grouping the first three terms together.

$$x^2 + 16x + 64 - y^2$$

**MA90 Exercises for section 6.4    The Difference of Two Squares & Other Special Cases  
Answer Section****SHORT ANSWER**

1. ANS:  
 $(x + 7) \cdot (x - 7)$

PTS: 1

2. ANS:  
 $6(2x + 3) \cdot (2x - 3)$

PTS: 1

3. ANS:  
 $3(x + 5) \cdot (x - 5)$

PTS: 1

4. ANS:  
 $(x - 1)^2$

PTS: 1

5. ANS:  
 $(a + 8)^2$

PTS: 1

6. ANS:  
 $(5a - 4)^2$

PTS: 1

7. ANS:  
 $(x + 6y)^2$

PTS: 1

8. ANS:  
 $(3a - b)^2$

PTS: 1

9. ANS:  
 $2(x + 6y)^2$

PTS: 1

10. ANS:

$$(x + 8 + y) \cdot (x + 8 - y)$$

PTS: 1