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| **Homework 16 Review** | **Unit 1** |
| **Factor the following:**  |
| 1. *x*2 - 64
 | 1. $81v^{4}-900v^{2}$
 |
| 1. x2 – 9x + 14
 | 1. x2 – 7x + 6
 |
| 1. x2 + 7x + 6
 | 1. x2 – 6x – 40
 |
| 1. 2x2 + x – 1
 | 1. 3x2 – 11x – 42
 |
| 1. 28x3 + 156x2 + 80x
 | 1. 3x2 – 7x – 10
 |
| **Solve by taking the square root:**  |
| 1.
 | 1.
 |
| 1. x2 – 19 = 0
 | 1. 2x2 + 338 = 0
 |
| 1. 4(x+ 5)2 = - 64
 | 1. 5(x – 4)2 = 125
 |
| **Solve using the quadratic formula:**  |
| 1. 2x2 - 3x + 2 = 0
 | 1. x2 + 4x = 2
 |
| **Find the discriminant and use it to determine if the equation has one real, two real, or two imaginary root(s).**  |
| 1. x2 + 4x + 3 = 0
 | 1. x2 - 2x + 4 = 0
 |
| 1. x2 - 2x + 1 = 0
 | 1. 3x2 + 2x + - 1 = 0
 |
| **Solve by factoring:**  |
| 1.
 | 1.
 |
| 1. 3x2 - 10x + 3 = 0
 | 1.
 |
| **Find the missing information with the following** |
| 1. The length of a rectangle is 5 cm more than its width and the area is 50 cm2.

Let the width be x. Then the length = x + 5.***Find the length, width and the perimeter.*** | 1. The three sides of a right triangle are x, x+1 and 5.

***Find x and the area,*** if the longest side is 5.The hypotenuse = 5  |