

## MPM2D - WS - Predicting Roots from Vertex Form

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| <p>1. <math>y = 22(x + 1)^2 + 2</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>2. <math>y = -\frac{19}{5}x^2 + 8</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>3. <math>y = \frac{8}{9}(x - 3)^2 + 6</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>4. <math>y = \frac{10}{3}(x + 12)^2 - 3</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>5. <math>y = 4(x + 3)^2 - 1</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>6. <math>y = -(x - 11)^2 + 7</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>7. <math>y = \frac{25}{4}(x - 2)^2 - 7</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>8. <math>y = \frac{25}{2}(x + 12)^2 + 3</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>9. <math>y = \frac{7}{12}(x + 12)^2 - 7</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>10. <math>y = \frac{5}{4}(x - 2)^2 + 3</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> | <p>11. <math>y = (x + 2)^2 + 8</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>12. <math>y = -2(x - 12)^2</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>13. <math>y = -\frac{11}{2}(x + 10)^2 - 3</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>14. <math>y = \frac{18}{25}(x - 5)^2 - 2</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>15. <math>y = -17(x - 6)^2 - 4</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>16. <math>y = -\frac{10}{49}(x + 7)^2 - 6</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>17. <math>y = \frac{12}{7}(x + 7)^2 - 5</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>18. <math>y = -\frac{1}{2}(x + 2)^2 + 3</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>19. <math>y = 3(x - 8)^2 - 2</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> <p>20. <math>y = \frac{8}{19}x^2 - 4</math><br/>Vertex _____ Opens: _____ # Zeroes: _____</p> |
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**MPM2D - WS - Predicting Roots from Vertex Form****Answer Section**

1. Vertex:  $(-1, 2)$  Opens: up # Zeroes: 0
2. Vertex:  $(0, 8)$  Opens: down # Zeroes: 2
3. Vertex:  $(3, 6)$  Opens: up # Zeroes: 0
4. Vertex:  $(-12, -3)$  Opens: up # Zeroes: 2
5. Vertex:  $(-3, -1)$  Opens: up # Zeroes: 2
6. Vertex:  $(11, 7)$  Opens: down # Zeroes: 2
7. Vertex:  $(2, -7)$  Opens: up # Zeroes: 2
8. Vertex:  $(-12, 3)$  Opens: up # Zeroes: 0
9. Vertex:  $(-12, -7)$  Opens: up # Zeroes: 2
10. Vertex:  $(2, 3)$  Opens: up # Zeroes: 0
11. Vertex:  $(-2, 8)$  Opens: up # Zeroes: 0
12. Vertex:  $(12, 0)$  Opens: down # Zeroes: 1
13. Vertex:  $(-10, -3)$  Opens: down # Zeroes: 0
14. Vertex:  $(5, -2)$  Opens: up # Zeroes: 2
15. Vertex:  $(6, -4)$  Opens: down # Zeroes: 0
16. Vertex:  $(-7, -6)$  Opens: down # Zeroes: 0
17. Vertex:  $(-7, -5)$  Opens: up # Zeroes: 2
18. Vertex:  $(-2, 3)$  Opens: down # Zeroes: 2
19. Vertex:  $(8, -2)$  Opens: up # Zeroes: 2
20. Vertex:  $(0, -4)$  Opens: up # Zeroes: 2