

Answer Key

Unit 1 Review

1. $x = -12$ and $x = 3$ MGSE9-12.A.REI.4b
2. $x = -\frac{1}{2}$ and $x = 4$ MGSE9-12.A.REI.4b
3. $x = -5 + \sqrt{7}$ and $x = -5 - 1\sqrt{7}$
MGSE9-12.A.REI.4b
4. $x = 5 + 2\sqrt{6}$ and $x = 5 - 2\sqrt{6}$
MGSE9-12.A.REI.4b
5. $x = \sqrt{17}$ and $x = -\sqrt{17}$ MGSE9-12.A.REI.4b
6. $x = -1$ and $x = -\frac{2}{3}$ MGSE9-12.A.REI.4b
7. $x^{\frac{3}{5}}$ MGSE9-12.N.RN.2
8. $\sqrt[4]{x}$ MGSE9-12.N.RN.2
9. $11 + 2i$ MGSE9-12.C.CN.2
10. $-4 + 11i$ MGSE9-12.C.CN.2
11. $\frac{17 - 28i}{29}$ MGSE9-12.C.CN.3
12. $22 + 14i$ MGSE9-12.C.CN.2

13. $8 - 6i$ MGSE9-12.C.CN.2
14. $3 + 3i$ MGSE9-12.C.CN.3
15. C MGSE9-12.C.CN.1, C.CN.3
16. A MGSE9-12.N.RN.2
17. $x = 12i$ and $x = -12i$ MGSE9-12.C.CN.7
18. $x = -1 + i\sqrt{5}$ and $x = -1 - i\sqrt{5}$
MGSE9-12.C.CN.7
19. $x = \frac{-5 + i\sqrt{39}}{8}$ and $x = \frac{-5 - i\sqrt{39}}{8}$
MGSE9-12.C.CN.7

20. $(x + 5i)(x - 5i)$ MGSE9-12.C.CN.8

21. $(x + 2 + i)(x + 2 - i)$ MGSE9-12.C.CN.8

22. i

23. $x < 2$ or $x > 3$ $(-\infty, 2) \cup (3, \infty)$

24. $x^2 - 2x + 2 = 0$

25. $k \leq -3$ or $k \geq 2$ $(-\infty, -3] \cup [2, \infty)$