

Solve the linear equation.

1) $(-6x + 4) + 7 = -5(x - 2)$

A) $\{-13\}$

B) $\{-1\}$

C) $\{1\}$

D) $\{13\}$

1) _____

Solve the equation.

2) $\frac{x}{5} = \frac{x}{8} + \frac{9}{5}$

A) $\{24\}$

B) $\left\{\frac{1}{24}\right\}$

C) $\left\{-\frac{9}{5}\right\}$

D) 0

2) _____

Solve the linear inequality. Other than $\emptyset$, use interval notation to express the solution set.

3) $3x - 1 > 2x + 5$

A) $[6, \infty)$

B) $(-\infty, 6]$

C) $(6, \infty)$

D) $(4, \infty)$

3) _____

4) $-5x + 3 \geq -6x + 9$

A) $[6, \infty)$

B) $(-\infty, 6]$

C) $(12, \infty)$

D) $(-\infty, 6)$

4) _____

Solve the absolute value equation or indicate that the equation has no solution.

5) $|x - 1| = 4$

A) $\{-5, 3\}$

B) $\{5\}$

C) $\{-3, 5\}$

D) $\emptyset$

5) _____

6) $\left|\frac{1}{2}x + 2\right| = \left|\frac{3}{4}x - 2\right|$

A) $\{16, 0\}$

B) $\{10, 10\}$

C) $\{16, 12\}$

D) $\emptyset$

6) _____

Solve the absolute value inequality. Other than $\emptyset$, use interval notation to express the solution set.

7) $|x + 4| < 2$

A) $[-6, -2]$

B) $(-6, -2)$

C) $(-\infty, -6) \cup (-2, \infty)$

D) $\emptyset$

7) _____

8) $|x + 3| + 4 \leq 8$

A) $(-7, 1)$

B) $[-7, 1]$

C) $[-7, 8]$

D) $(-\infty, -7] \cup [1, \infty)$

8) _____

Add or subtract as indicated and write the result in standard form.

9) $4i - (-8 - i)$

A) $8 - 3i$

B) $-8 - 5i$

C) $8 + 5i$

D) $-8 + 3i$

9) _____

Find the product and write the result in standard form.

10) $-5i(2i - 7)$

A) $10 + 35i$

B) $-10 + 35i$

C) $35i + 10i^2$

D) $35i - 10i^2$

10) _____

Divide and express the result in standard form.

11) $\frac{9}{7 - i}$

A) $\frac{63}{50} - \frac{9}{50}i$

B) $\frac{21}{16} - \frac{3}{16}i$

C) $\frac{63}{50} + \frac{9}{50}i$

D) $\frac{21}{16} + \frac{3}{16}i$

11) _____

Solve the equation by factoring.

12) $x^2 + 2x - 99 = 0$

A) $\{11, -9\}$

B) $\{-11, 9\}$

C) $\{-11, 1\}$

D) $\{11, 9\}$

12) _____

Solve the equation by the square root property.

13) $(2x - 3)^2 = 9$

A) $\{0, 6\}$

B) $\{-6, 0\}$

C) $\{0, 3\}$

D) $\{-3, 0\}$

13) _____

14) $(x - 7)^2 = -4$

A) $\{7i \pm 2\}$

B) $\{7 \pm 2i\}$

C) $\left\{\pm \frac{2i}{7}\right\}$

D) $\{-7 \pm 2i\}$

14) _____

Solve the equation by completing the square.

15) $x^2 + x + 7 = 0$

A) $\left\{\frac{1 \pm 3\sqrt{3}}{2}\right\}$

B) $\left\{\frac{-1 \pm 3\sqrt{3}}{2}\right\}$

C) $\left\{\frac{1 \pm 3i\sqrt{3}}{2}\right\}$

D) $\left\{\frac{-1 \pm 3i\sqrt{3}}{2}\right\}$

15) _____

Solve the equation using the quadratic formula.

16) $x^2 - 10x + 41 = 0$

A) $\{5 + 4i, 5 - 4i\}$

B) $\{5 + 4i\}$

C) $\{9, 1\}$

D) $\{5 - 16i, 5 + 16i\}$

16) _____

Solve the radical equation, and check all proposed solutions.

17) $\sqrt{4x - 3} = 3$

A) $\left\{\frac{3}{2}\right\}$

B) $\{3\}$

C) $\{9\}$

D) $\emptyset$

17) _____

18) $\sqrt{7x + 18} = x$

A) $\emptyset$

B) $\{9\}$

C) $\{-2, 9\}$

D) $\{-3\}$

18) _____

Find the distance between the pair of points.

19) $(-2, -3)$ and $(-14, -8)$

A) 13

B) 169

C) 26

D) 14

19) _____

Write the standard form of the equation of the circle with the given center and radius.

20) $(5, 6); 12$

A) $(x - 5)^2 + (y - 6)^2 = 144$

B) $(x - 6)^2 + (y - 5)^2 = 12$

C) $(x + 5)^2 + (y + 6)^2 = 144$

D) $(x + 6)^2 + (y + 5)^2 = 12$

20) _____

Answer Key

Testname: REVIEW1

- 1) C
- 2) A
- 3) C
- 4) A
- 5) C
- 6) A
- 7) B
- 8) B
- 9) C
- 10) A
- 11) C
- 12) B
- 13) C
- 14) B
- 15) D
- 16) A
- 17) B
- 18) B
- 19) A
- 20) A