Unit 2 Review

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| 1. Factor and solve the equation.

$$x^{2}-100=0$$ | 1. Factor and solve the equation.

$$x^{2}+10x+25=0$$ |
| 1. Factor and solve the equation.

$$x^{2}+9x+18=0$$ | 1. Approximate the radical to the nearest tenth.

$$\sqrt{34}$$ |
| 1. Approximate the radical to the nearest tenth.

$$\sqrt{82}$$ | 1. Solve for *x* and simplify.

$$x^{2}=72$$ |
| 1. Solve for *x* and simplify.

$$x^{2}=54$$ | 1. Solve for *x* and simplify.

$$(x+2)^{2}=75$$ |
| 1. Solve for *x* and simplify.

$$(x-5)^{2}=24$$ | 1. Complete the square to determine the roots.

$$x^{2}-14x+9=0$$ |
| 1. Complete the square to determine the roots.

$$x^{2}+6x-2=0$$ | 1. Determine the zeros using the quadratic formula.

$$f\left(x\right)=x^{2}+2x-9$$ |
| 1. Determine the zeros, vertex, and *y*-intercept. Then, graph.

$$ f\left(x\right)=-x^{2}+5x-8$$ | 1. Determine the zeros, vertex, and *y*-intercept. Then, graph.

$$f\left(x\right)=-2x^{2}+5x+3$$ |
| 1. Determine the zeros, vertex, and *y*-intercept. Then, graph.

$$f\left(x\right)=x^{2}+2x-9$$ | 1. Determine the zeros, vertex, and *y*-intercept. Then, graph.

$$f\left(x\right)=x^{2}+6x-2$$ |
| 1. Graph and determine the solutions.

$$f\left(x\right)>x^{2}+6x-5$$ | 1. Graph and determine the solutions.

$$f\left(x\right)\leq -x^{2}+2x$$ |
| 1. Solve the system of equations.

$$\left\{\begin{array}{c}y=2x-3 \\y=x^{2}-5x+9\end{array}\right.$$ | 1. Solve the system of equations.

$$\left\{\begin{array}{c}y=x+1 \\y=-x^{2}+2x-3\end{array}\right.$$ |
| 1. Simplify.

$$\sqrt{-49}$$ | 1. Simplify.

$$\sqrt{-90}$$ |
| 1. Simplify.

$$\left(3-2i\right)+(5+i)$$ | 1. Simplify.

$$\left(3-2i\right)-(5+i)$$ |
| 1. Simplify.

$$\left(3-2i\right)(5+i)$$ | 1. Simplify.

$$\left(6+4i\right)(6-4i)$$ |
| 1. Simplify.

$$i^{76}$$ | 1. Simplify.

$$i^{13}$$ |