## Mid Chapter Quiz

1. Classify each polynomial according to its degree and type.


Algebra 1: CC 2019>Chapter 7>End-Of-Chapter>Mid Chapter Quiz> Question \#1
2. Find the sum. Write your answer in standard form.
$\left(6 x^{3}+3 x^{2}+3\right)+\left(2 x^{3}-5 x+1\right)$

The sum is $\square$
3. Find the difference. Write your answer in standard form.

$$
\left(5 x^{3}-3 x+6\right)-\left(2 x^{2}-4 x+8\right)
$$

The difference is $\square$
4. Find $(2 x+1)(x-2)$ using the table of products. Write your answer in standard form.


The product is $\square$
5. Find $(x+4)\left(x^{2}+x-2\right)$. Write your answer in standard form.

The product is $\square$
6. Identify each product.


$$
\begin{array}{r}
2 x^{2}+4 x y+4 y^{2} \quad 2 y^{2}+4 \\
x^{2}+4 x y+4 y^{2}
\end{array}
$$

$$
y^{2}+4 x y+4 x^{2}
$$

7. Which expression is equivalent to $(4-2 x)(4+2 x)$ ?
$(16-2 x)^{2}$
$(16+2 x)^{2}$
○ $4-4 x^{2}$
○ $16-4 x^{2}$
○ $16-8 x+4 x^{2}$
○ $16-8 x-4 x^{2}$
○ $16-16 x-4 x^{2}$
8. Solve $7 x^{2}=28 x$.

The roots are $x=\square$ and $x=\square$.
9. Solve $x^{2}+5=21$.

The roots are $x=\square$ and $x=\square$.
10. The path of a ball kicked from the ground can be modeled by the equation $y=-\frac{1}{4}(x-2)(x-22)$, where $x$ and $y$ are measured in feet. The $x$-axis represents the ground. How far does the ball land from where it is kicked?

The ball lands $\square$ feet from where it is kicked.

