

Any standard **highlighted in yellow** has been determined by our WCSD teachers, district and state experts as essential for students to master.

Strand: I can perform arithmetic operations with complex numbers (10.N.CN 1-2)			
Strand: I can use complex numbers in polynomial identities and equations (10.N.CN 7-9)			
Standard 10.N.CN.1: I know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real.			
<p>Learning Targets</p> <ul style="list-style-type: none"> I can define the meaning of a complex number. 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> complex number, i, i^2 	<p>Question Stems</p> <ul style="list-style-type: none"> How did you solve the problem? Can you explain what you've done so far? Why does your answer seem reasonable? 	<p>Possible Assessments</p> <ul style="list-style-type: none"> <u>District CFAs</u>
Standard 10.N.CN.2: I can use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers. I know the limits to multiplications that involve i^2 as the highest power of i.			
<p>Learning Targets</p> <ul style="list-style-type: none"> I can use the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers. I can explain my reasoning and why a certain property works to help solve the problem. 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> commutative, associative, distributive property, complex number, i^2, highest power 	<p>Question Stems</p> <ul style="list-style-type: none"> Use math words to describe your process in solving the problem. What strategy did you use? 	<p>Possible Assessments</p> <ul style="list-style-type: none"> <u>District CFAs</u>

Standard 10.N.CN.7: I can solve quadratic equations with real coefficients that have complex solutions.			
<p>Learning Targets</p> <ul style="list-style-type: none"> I can solve quadratic equations. I can use real coefficients to help me solve quadratic equations that have complex solutions. 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> quadratic, real coefficients, complex solutions 	<p>Question Stems</p> <ul style="list-style-type: none"> What strategy did you use? How did you solve the problem? Justify your answer 	<p>Possible Assessments</p> <ul style="list-style-type: none"> <u>District CFAs</u>
Standard 10.N.CN.8: I can extend polynomial identities to the complex numbers.			
<p>Learning Targets</p> <ul style="list-style-type: none"> I can use polynomial identities with complex numbers. 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> quadratic, complex numbers, polynomial identities 	<p>Question Stems</p> <ul style="list-style-type: none"> What questions arose as you worked through the problem? Justify your answer 	<p>Possible Assessments</p> <ul style="list-style-type: none"> <u>District CFAs</u>
Standard 10.N.CN.9: I know and can use the Fundamental Theorem of Algebra and can show that it is true for quadratic polynomials.			
<p>Learning Targets</p> <ul style="list-style-type: none"> I can solve quadratic equations. I can use the Fundamental Theorem of Algebra to solve quadratic polynomials 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> Fundamental Theorem of Algebra, quadratic polynomials 	<p>Question Stems</p> <ul style="list-style-type: none"> What was the most challenging part of the task? Why? How have you shown your thinking? 	<p>Possible Assessments</p> <ul style="list-style-type: none"> <u>District CFAs</u>