

ISTAR Grade 7 Mathematics Performance Level Descriptors (PLDs)

Developing Proficiency	Meeting Proficiency	Exceeding Proficiency
<p>A student performing at a Developing Proficiency level demonstrates emerging skills in introductory mathematics concepts and vocabulary. The student is able to solve simple problems when provided graphic support. He/she is able to:</p>	<p>A student performing at a Meeting Proficiency level demonstrates proficient skills in basic mathematics concepts and vocabulary. The student is able to solve simple problems without graphic support and more difficult problems with graphic support. He/she has all the knowledge and skills shown under Developing Proficiency and is also able to:</p>	<p>A student performing at an Exceeding Proficiency level demonstrates exemplary skills in applying basic mathematics concepts and vocabulary. The student is able to solve more difficult problems without graphic support. He/she has all the knowledge and skills shown under Developing Proficiency and Meeting Proficiency and it also able to:</p>
<p>Number Sense and Computation:</p> <ul style="list-style-type: none"> • identify the square root of a perfect square. • understand the definition of rational and irrational numbers. • understand that integers have an opposite. • understand proportion (2 equivalent ratios). • recognize a ratio in a word problem. • understand that a percent or a ratio can increase or decrease the original value of a number. • determine the operations needed to solve a multi-step problem. 	<p>Number Sense and Computation:</p> <ul style="list-style-type: none"> • identify the square of a whole number. • identify and compare irrational numbers (e.g., $\sqrt{2}$ is less than $\sqrt{3}$). • order rational and irrational numbers on a number line. • add a positive and negative integer with support, such as movement on a number line. • solve problems involving ratios and proportions. • use order of operations to solve two-step problems with whole numbers. 	<p>Number Sense and Computation:</p> <ul style="list-style-type: none"> • identify the square and square root of whole numbers. • order and compare rational and irrational numbers. • add positive and negative integers. • demonstrate an understanding of proportions and ratios by solving word problems involving ratios. • use order of operations to solve multi-step problems with rational numbers.
<p>Algebra and Functions:</p> <ul style="list-style-type: none"> • understand inverse operations. 	<p>Algebra and Functions:</p> <ul style="list-style-type: none"> • solve equations with one variable with graphical support. 	<p>Algebra and Functions:</p> <ul style="list-style-type: none"> • solve equations with one variable in real-world problems.
<p>Geometry and Measurement:</p> <ul style="list-style-type: none"> • identify the right triangle in a set of triangles. • identify adjacent objects using “next to.” 	<p>Geometry and Measurement:</p> <ul style="list-style-type: none"> • identify obtuse, acute, and right triangles when provided an example. • identify adjacent and vertical angles in real-world contexts. 	<p>Geometry and Measurement:</p> <ul style="list-style-type: none"> • identify obtuse, acute, and right triangles when provided a set of triangles.
<p>Data Analysis, Statistics, and Probability:</p> <ul style="list-style-type: none"> • predict what is most likely or least likely to happen next when given a visual model. 	<p>Data Analysis, Statistics, and Probability:</p> <ul style="list-style-type: none"> • make a prediction about the probability of an event occurring when given a graphic model, such as a spinner. 	<p>Data Analysis, Statistics, and Probability:</p> <ul style="list-style-type: none"> • interpret simple probability experiments.