

Name: _____
Algebra 1

Date: _____
Band: _____

Unit 3: Solving Inequalities

Instructions: Choose one performance task. Write all your work on a separate clean piece of paper and attach it to this page.

Big Idea: Variable

You can use algebraic inequalities to represent relationships between quantities that are not equal.

Performance Task 1

A camping supply store usually prices tents from \$68 to \$119. What is the range of possible prices for tents on sale? Show your work.

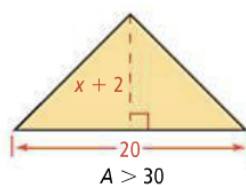
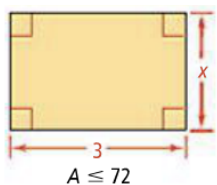


Big Idea: Equivalence

You can represent an inequality using symbols in an infinite number of ways. Equivalent representations have the same solutions as the original inequality.

Performance Task 2

For each figure, find the values of x such that the area A of the figure satisfies the given condition. Show your work.

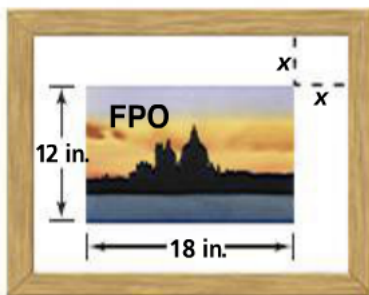


Big Idea: Solving Equations and Inequalities

You can use properties of inequality to transform an inequality into equivalent, simpler inequalities and then find solutions.

Performance Task 3

You have a photograph 12 in. wide and 18 in. long. You surround the photograph with a mat x in. wide, as shown below. You have an 80-in. piece of wood to make a frame for the matted photograph. Using the information below, what are the dimensions of the frame that encloses the greatest area? Show your work.



Performance Task Assessment: Analytic Holistic Scoring**Developing Autonomy—The student**

3	Persevered to complete the problem without help
2	Completed most of the problem without help
1	Needed key hints to complete the problem
0	Needed extensive guidance to work the problem

The Solution Process—The student's work showed

3	A complete and appropriate solution process
2	An appropriate solution process that is almost complete
1	An appropriate process that is partially complete
0	An inappropriate process or no evidence of a process

The Conclusion/Answer—The student's answer is an

3	Accurate conclusion, supported by valid evidence and reasons, appropriate to this problem and context
2	Inaccurate but logical conclusion, supported by evidence and reasoning but incorrect due to a minor factual error (in details of problem, in computation, recall a formula, etc.) or minor mistake in reasoning
1	Inaccurate but logical conclusion that overlooks, or gets wrong significant facts (about the problem, the rule, computation, etc.)
0	Inappropriate conclusion: not supported by facts and logic, or there is no conclusion

Teacher Comments: