

Name: _____

Class: _____

Problem of the Week Day

Hoop Heroes

In leading their basketball team to victory, Kylie and Shaniqua were the top two scorers in the championship game. Using the following clues, determine how many points each girl scored:

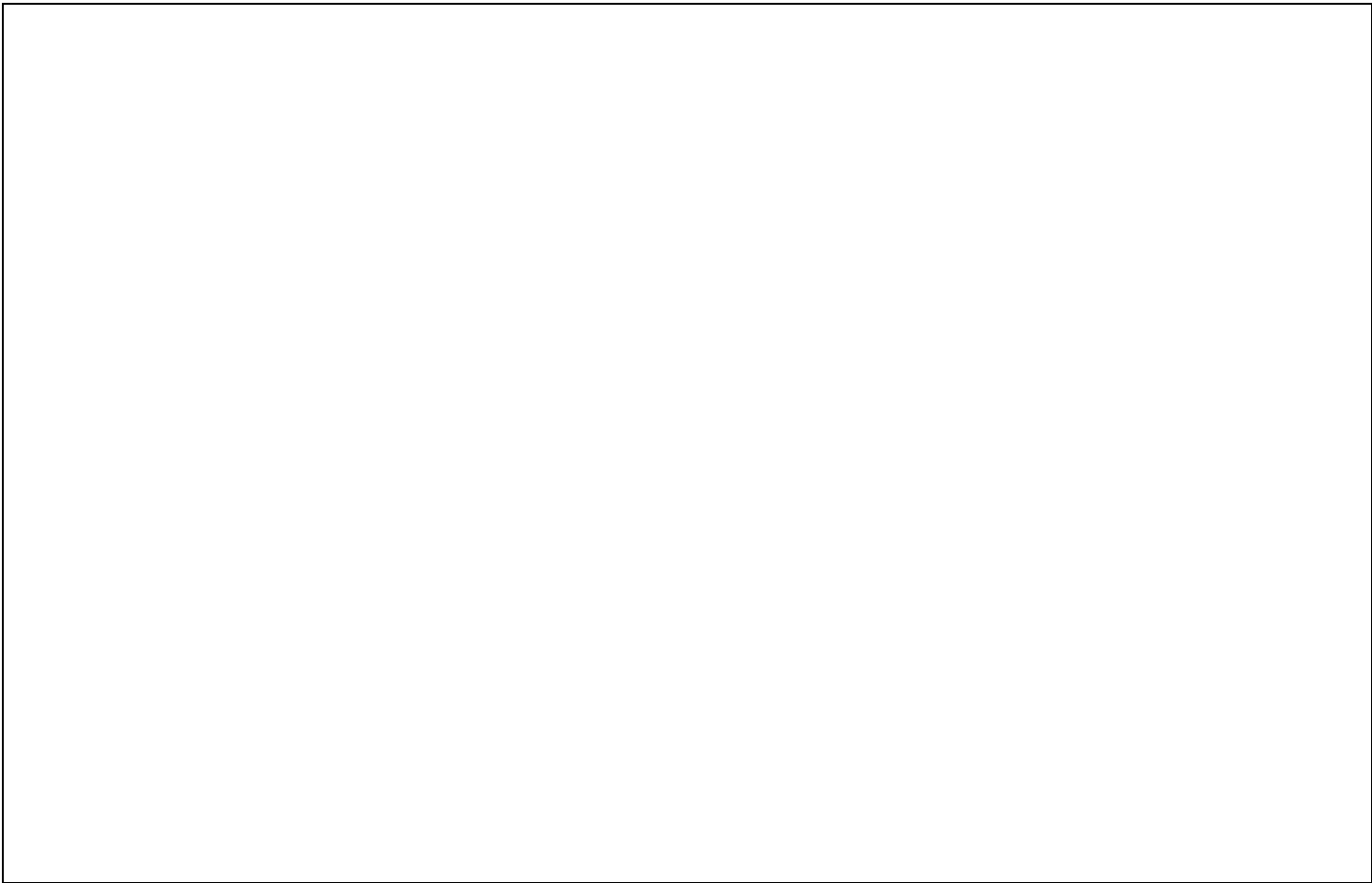
- If you subtract two times Kylie's points from three times Shaniqua's points, the difference is less than six.
- Shaniqua scored at least as many points as nine more than one-fourth of Kylie's points.
- Kylie scored fewer than 20 points.



Remember that in basketball you can only score whole numbers of points.

Solution:

Explanation:



	Novice	Apprentice	Practitioner	Expert
Problem Solving				
Interpretation	exhibits understanding of only one or two of the concepts involved - see the Practitioner column	doesn't understand one of the concepts involved - see the Practitioner column doesn't solve all parts of the problem	understands how to translate the problem statements into inequalities attempts to use the inequalities to solve the problem understands what whole numbers are	not possible since no Extra question
Strategy	has no ideas that will lead them toward a successful solution	picks an incorrect strategy, or relies on luck to get the right answer uses Guess and Check from the start without ever writing inequalities	picks a sound strategy—success achieved through skill, not luck uses algebraic techniques to solve the problem	uses two separate strategies or an unusual or sophisticated strategy
Accuracy	work contains many errors	work is mostly accurate, with a few errors	work is accurate and contains no arithmetic mistakes uses appropriate vocabulary	generally not possible - can't be more accurate than Practitioner
Communication				
Completeness	has written nothing that tells you how they found their answer	doesn't define variable(s) doesn't explain where equations and expressions came from shows work but doesn't explain it, OR explains what they did without showing any of the actual work	defines variable(s) explains all of the steps taken to solve the problem states any equations and formulas used explains where most of those equations came from	adds in useful extensions and further explanation of some of the ideas involved the additions are helpful, not just "I'll say more to get more credit"
Clarity	explanation is very difficult to read and follow	explanation isn't entirely unclear, but would be hard for another student to follow explanation is long and is written entirely in one paragraph explanation contains many spelling and typing errors	explains all of the steps in such a way that another student would understand makes an effort to check their formatting, spelling, and typing (a few errors are fine as long as they don't make it hard to read)	formats things exceptionally clearly answer is very readable and appealing