Geometry **5.4 Pythagorean Theorem Practice** - group work Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| 1)  pond  To get from point A to point B you must avoid walking through a pond.  To avoid the pond, you must walk 34 meters south and 41 meters east.  How many meters would be saved if it were possible to walk through the pond?  (give an exact answer with a simplified radical) | **RATE YOURSELF on this problem;**  (1 = weak, 4 = strong)  *Participation;*  **1 2 3 4**  *Understanding;*  **1 2 3 4** |
| 2)   |  |  | | --- | --- | | baseball | A baseball diamond is a square with sides of 90 feet.  What is the shortest exact distance between first base and third base? | | **RATE YOURSELF on this problem;**  (1 = weak, 4 = strong)  *Participation;*  **1 2 3 4**  *Understanding;*  **1 2 3 4** |
| |  |  | | --- | --- | | pc23 | In a computer catalog, a computer monitor is listed as being 19 inches.  This distance is the diagonal distance across the screen.  If the screen measures 10 inches in height, what is the actual width of the screen to the *nearest inch*? | | | **RATE YOURSELF on this problem;**  (1 = weak, 4 = strong)  *Participation;*  **1 2 3 4**  *Understanding;*  **1 2 3 4** |
| joggers4)   |  |  | | --- | --- | |  | Two joggers run 8 miles north and then 5 miles west.  What is the shortest distance, they must travel to return to their starting point? | | **RATE YOURSELF on this problem;**  (1 = weak, 4 = strong)  *Participation;*  **1 2 3 4**  *Understanding;*  **1 2 3 4** |
| 5) j0073826 Oscar’s dog house is shaped like a tent.  The slanted sides are both 5 feet long and the bottom of the house is 6 feet across.  What is the height of his dog house, in feet, at its tallest point? | **RATE YOURSELF on this problem;**  (1 = weak, 4 = strong)  *Participation;*  **1 2 3 4**  *Understanding;*  **1 2 3 4** |
| 6) If the side of a square is 7 units long, how long is the diagonal? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **RATE YOURSELF on this prob;**  *Participation;*  **1 2 3 4**  *Understanding;*  **1 2 3 4** |
| 7) A rectangular suitcase measures 2 feet by 3 feet.  Can an umbrella that is 42 inches long be packed lying flat in the suitcase? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Show work to support your answer. | **RATE YOURSELF on this prob;**  *Participation;*  **1 2 3 4**  *Understanding;*  **1 2 3 4** |
| 8) The lengths of the 3 sides of a triangle are 6, 8, and 10. Is it a RIGHT triangle? Explain how you know. | **RATE YOURSELF on this prob;**  *Participation;*  **1 2 3 4**  *Understanding;*  **1 2 3 4** |
| 9) The lengths of the 3 sides of a triangle are 12, 20, and 28. Is it a RIGHT triangle? Explain how you know. | **RATE YOURSELF on this prob;**  *Participation;*  **1 2 3 4**  *Understanding;*  **1 2 3 4** |
| 10) Make up your own “Pythagorean Triple” (A Pythagorean Triple is a set of 3 numbers that make the Pythagorean theorem true and can therefore be the sides of a RIGHT triangle) |  |