Analysis CP- Unit 2 Review WS Answers

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| 1. Given a = 5, b = 8, and C = 70°, find c.   70°  5  C  B  A  8 | **SAS 🡪 Law of Cosines** |
| 1. Given c = 4, a = 6, and A = 50°, find C.   4  50°  6  A  B  C | **SSA 🡪 Law of Sines** |
| 1. Given A = 31°20’, C = 65°50’ and c = 6, find b.   6  82°50'  A  B  C  31°20'  65°50' | **AAS 🡪 Law of Sines** |
| 1. Given b = 6, a = 3, and A = 64°, find the area of .   6  3  A  B  64° | **SSA 🡪 Law of Sines**  No triangle exists.  The opposite side is not long enough to reach the bottom to form a triangle. |
| 1. Given c = 6, B = 61°40’, and A = 92°30’, find the area of .   6  25°50'  A  C  B  92°30'  61°40' | **ASA 🡪 Law of Sines**      Area using Heron's formula: |
| 6a. Given: B = 40°, b = 30, c = 20  20  B  A  C  40°  30 | **SSA 🡪 Law of Sines**  One solution: Opposite side (30) is longer than adjacent side (20) |
| 6b. Given: B = 140°, c = 30, b = 20  30  20  B  A  C  140° | **SSA 🡪 Law of Sines**  No triangle exists.  The opposite side of the obtuse angle is not long enough to reach the bottom side. |
| 6c. Given: C = 55°10’, b =480, c = 428  480  428  C  A  B  55°10' | **SSA 🡪 Law of Sines**  Two triangles exist:    or |
| 6d. Given: A = 60°, a = 1.5, b = 2  2  1.5  A  C  B  60° | **SSA 🡪 Law of Sines**  Zero triangles:  The opposite side is not long enough to reach the bottom to form a triangle. |
| 6e. Given: A = 30°, B= 60°, C = 90°  30°  B  A  C  60° | **AAA 🡪 Infinite Solutions** |
| 6f. Given: a = 10, b = 4, c = 5  4  10  A  B  C  5 | **SSS 🡪 Law of Cosines**  No triangle exists.  Sum of 4 and 5 is less than the third side (10) |
| 13x  7x  B  A  C  15x | **SSS 🡪 Law of Cosines** |
| 147'  185'  51°10'  A  C  B  c | **SAS 🡪 Law of Cosines**    Area using Heron's formula: |
| 115  150  A  B  C  225  150  225  115 | **SSS 🡪 Law of Cosines**  Area using Heron's formula: |
| 100  θ  40 | **Right Triangle Trigonometry**    South of East |
| 27°  2030'  h  d1  10°  17°  10°  d2 | **Law of Sines** |

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