Analysis CP- Unit 2 Review WS Answers

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| 1. Given a = 5, b = 8, and C = 70°, find c.

70°5CBA8 | **SAS 🡪 Law of Cosines**  |
| 1. Given c = 4, a = 6, and A = 50°, find C.

450°6ABC | **SSA 🡪 Law of Sines** |
| 1. Given A = 31°20’, C = 65°50’ and c = 6, find b.

682°50'ABC31°20'65°50' | **AAS 🡪 Law of Sines** |
| 1. Given b = 6, a = 3, and A = 64°, find the area of .

63AB64° | **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 .

625°50'ACB92°30'61°40' | **ASA 🡪 Law of Sines**  Area using Heron's formula:  |
| 6a. Given: B = 40°, b = 30, c = 2020BAC40°30 | **SSA 🡪 Law of Sines**One solution: Opposite side (30) is longer than adjacent side (20)    |
| 6b. Given: B = 140°, c = 30, b = 203020BAC140° | **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 = 428480428CAB55°10' | **SSA 🡪 Law of Sines**Two triangles exist: or  |
| 6d. Given: A = 60°, a = 1.5, b = 221.5ACB60° | **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°BAC60° | **AAA 🡪 Infinite Solutions** |
| 6f. Given: a = 10, b = 4, c = 5410ABC5 | **SSS 🡪 Law of Cosines**No triangle exists. Sum of 4 and 5 is less than the third side (10) |
| 13x7xBAC15x | **SSS 🡪 Law of Cosines** |
| 147'185'51°10'ACBc | **SAS 🡪 Law of Cosines** Area using Heron's formula:  |
| 115150ABC225150225115 | **SSS 🡪 Law of Cosines**Area using Heron's formula:     |
| 100θ40 | **Right Triangle Trigonometry**   South of East |
| 27°2030'hd110°17°10°d2 | **Law of Sines**   |

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