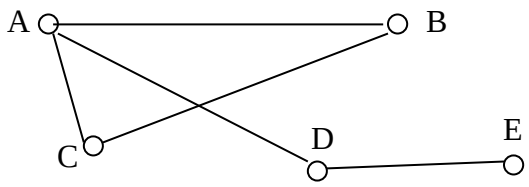
ACSL

2016 - 2017 **American Computer Science League** **Contest #4**

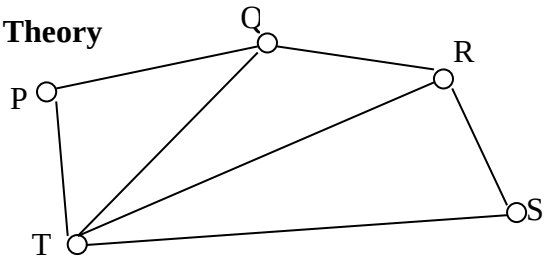
Elementary Division Solutions

1. Graph Theory



1. As shown as long as it's the same vertices and edges

2. Graph Theory



2. As shown as long as it's the same vertices and edges

3. Graph Theory

By inspection, they are ACD, ADB, ADE, and ADC.

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3. 4

4. Graph Theory

By inspection, they are AEDA and ADEA of length 3, AECBA and ABCEA of length 4, and ABCEDA and ADECBA of length 5.

4. 6

5. Graph Theory

There are 0 odd vertices in A so any order works.
There are 2 odd vertices in B so start with one and end with the other.
There are 4 odd vertices in C so it is not traversable.
There are 2 odd vertices in D so start with one and end with the other.

5. A, B, and D