

## Isotopes or Different Elements?

In each of the following statements, you are given a pair of elements and important information about each. Use this information to determine if the pair of elements are isotopes or different elements. Indicate your answer in the space provided.

1. Element D has 6 protons and 7 neutrons.  
Element F has 7 protons and 7 neutrons.

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2. Element J has 27 protons and 32 neutrons.  
Element L has 27 protons and 33 neutrons.

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3. Element X has 17 protons and 18 neutrons.  
Element Y has 18 protons and 17 neutrons.

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4. Element Q has 56 protons and 81 neutrons.  
Element R has 56 protons and 82 neutrons.

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5. Element T has an atomic number of 20 and an atomic mass of 40.  
Element Z has an atomic number of 20 and an atomic mass of 41.

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6. Element W has 8 protons and 8 neutrons.  
Element V has 7 protons and 8 neutrons.

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7. Element P has an atomic number of 92 and an atomic mass of 238.  
Element S has 92 protons and 143 neutrons.

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