Topic 5 What Channel Is This?

1. Many different energy forms make up the different parts of the electromagnetic spectrum. Radio waves have …
   A. low frequency and long wavelengths
   B. low frequency and short wavelengths
   C. high frequency and long wavelengths
   D. high frequency and short wavelengths

2. The advantage radio telescopes have over optical telescopes is that radio telescopes are…
   A. less expensive to construct and operate
   B. not affected by electromagnetic radiation
   C. used during the day, as well as at night
   D. can be easily moved from one location to another

3. Grote Reber built a radio dish, discovering that the strongest radio waves came from specific places in space. The static he heard became louder when he tuned into these …
   A. astronomical objects
   B. optical objects
   C. space objects
   D. radio objects

4. Radio telescope waves provide data, which astronomers graph, using computers to store the data and false color it to produce images of the radio waves, which are coded to the strength of the waves. For low intensity waves, they are colored …
   A. red
   B. blue
   C. green
   D. yellow

5. By combining several small radio telescopes (just like they do with optical telescopes) greater resolving power can be achieved. This is referred to as **radio** …
   A. interferometry
   B. astronomy
   C. telescopy
   D. imagery

6. The greater the distance between the radio telescopes the more accurately they can measure …
   A. size
   B. distance
   C. position
   D. composition

7. To improve accuracy many radio telescopes are combined electronically. This collection of many radio telescopes is called …
   A. a farm
   B. an array
   C. an order
   D. a grouping

8. The method, called Very Long Base Interferometry (VLBI) enables telescopes to be connected without wires, thanks to
   A. lines and angles
   B. circles and triangles
   C. transitors and dials
   D. computers and clocks

9. Additional resolution in a VLA image identified a central white region in a galaxy in deep space which astronomers think is the location of a …
   A. new star
   B. bying star
   C. black hole
   D. active galaxy