Lääketieteellinen kuvantaminen Tfy-99.280

Tentti 15.05.2003

Kirjoita tenttipaperiin nimi, opintokirjan numero + tunnus, osasto ja vuosikurssi

Lisäksi: Jos olet jättänyt harjoitustyön (tutkielman), kirjoita sen otsake.

1. You wish to produce an image with an 8 cm FOV and 256 phase encoding gradient steps. The maximum phase encoding gradient you can produce is 1 G/cm. What should the width of the phase encoding gradient be?

2. Explain the concept "rotating frame of reference" and why it is a useful concept in descriptions of NMR and MRI physics and techniques.

3. Explain the principle of X-ray tomography (not X-ray computed tomography). Give at least one widely used application.

4. Ultrasound imaging is used for examinations of an eye and a liver. Explain the major differences between the properties of techniques and devices used for these applications

5. Describe how ROC curves are used in assessment of imaging chain.