

## 2.5 Exercises

Insert the correct symbol:  $<$ ,  $>$ , or  $=$   
Do not use a calculator.

1.
  - a.  $7^{-\frac{1}{2}} \underline{\hspace{1cm}} -\sqrt{7}$
  - b.  $(-4)^0 \underline{\hspace{1cm}} 0$
  - c.  $.00035 \underline{\hspace{1cm}} 3.5 \times 10^{-3}$
  - d.  $-\frac{1}{2} \underline{\hspace{1cm}} -5.0 \times 10^{-1}$
  - e.  $\sqrt{5} \underline{\hspace{1cm}} 5$
  
2.
  - a.  $\sqrt{19} \underline{\hspace{1cm}} 4\frac{5}{9}$
  - b.  $-5^0 \underline{\hspace{1cm}} 0$
  - c.  $5.3 \times 10^{-3} \underline{\hspace{1cm}} .053$
  - d.  $4^{-1} \underline{\hspace{1cm}} 2.5 \times 10^{-1}$
  - e.  $\sqrt{3} \underline{\hspace{1cm}} 3$
  
3.
  - a.  $.0169 \underline{\hspace{1cm}} .017$
  - b.  $16^{\frac{1}{2}} \underline{\hspace{1cm}} 4$
  - c.  $-6^0 \underline{\hspace{1cm}} (-6^0)$
  - d.  $-2^{-2} \underline{\hspace{1cm}} -3^{-1}$
  - e.  $\sqrt{11} \underline{\hspace{1cm}} 3\frac{5}{7}$
  
4.
  - a.  $5^{-\frac{1}{2}} \underline{\hspace{1cm}} -\sqrt{5}$
  - b.  $\frac{2}{3} \underline{\hspace{1cm}} .66667$
  - c.  $4.7 \times 10^5 \underline{\hspace{1cm}} 47,000,000$
  - d.  $1.25 \times 10^{-1} \underline{\hspace{1cm}} 8^{-1}$
  - e.  $-11^2 \underline{\hspace{1cm}} (-11)^2$

5. a.  $\sqrt{13} \text{ \_\_\_ } 13.5$  d.  $\frac{1}{7} \text{ \_\_\_ } .142$
- b.  $\frac{1}{9} \text{ \_\_\_ } .11$  e.  $.00045 \text{ \_\_\_ } (5)(9)(10^{-3})$
- c.  $-13^{-1} \text{ \_\_\_ } -\frac{1}{13}$
6. a.  $2.0 \times 10^{-7} \text{ \_\_\_ } .00000021$  d.  $\frac{1}{25} \text{ \_\_\_ } 4.0 \times 10^{-3}$
- b.  $\frac{16^{\frac{1}{4}}}{2} \text{ \_\_\_ } 2.0 \times 10^{-1}$  e.  $\frac{125^{\frac{1}{3}}}{25} \text{ \_\_\_ } 2.0 \times 10^{-1}$
- c.  $\frac{2,000(.0003)}{.012} \text{ \_\_\_ } 5 \times 10^{-5}$

Answers to selected exercises:

- 1 a.  $7^{\frac{1}{2}} > -\sqrt{7}$  d.  $-\frac{1}{2} = -5.0 \times 10^{-1}$
- b.  $(-4)^0 > 0$  e.  $\sqrt{5} < 5$
- d.  $.00035 < 3.5 \times 10^{-3}$