

Weekly Review #6

Be sure to show ALL work to receive full credit. Circle or highlight your answers. Be sure to label units if necessary.

- 1) Solve the equation $7^{5x} \cdot 7^{-3} = 1$
- 2) How long is the hypotenuse c of a right triangle whose leg b measures $4h$ units and whose leg a measures $2h$ units ($h > 0$)?
- 3) Figure ABC is a right isosceles triangle. Side a is 25 inches in length. What is the measure of angle A in degrees?
- 4) If you travel a known distance d at a constant rate r , you can calculate the time t traveled with which calculation listed below?
A) $\frac{d}{r}$ B) $\frac{d}{t}$
C) $r \cdot d$ D) $\frac{r}{d}$
- 5) If 8×10^m is multiplied by 2×10^n , what is the product in scientific notation?
- 6) If the zeros of a quadratic function are -4 and 5 , write one possible quadratic function having these zeros?
- 7) In order to make extra money, Nancy decided to make greeting cards in her home. She had an initial one-time overhead cost of \$650, and finds the cost per card is \$2.50. Customers pay \$5.75 per card. Write a model that Nancy could use to calculate her profit P for making n cards.
- 8) Professor Ed bought a set of books from Red Bank Publishing for \$4800 and was charged \$576 as a percentage of the \$4800 for "shipping and handling". What is the rate the Red Bank Publishing charges for "shipping and handling"?
- 9) If $f(x) = 2^{-x} + x - 4$, then $f(-1)$ is?
- 10) A tire has a circumference of 30 inches. How many revolutions does it make as it rolls 33 feet?