

12. [8 points] In preparation for an upcoming party, you are deciding where to buy a large supply of candy. You have investigated two sources. Define function  $C$  and  $T$  as follows.

- It costs  $C(p)$  dollars to buy  $p$  pounds of candy from the Candy Company.
- For  $d$  dollars, you can buy  $T(d)$  pounds of candy from Tasty Sweets.

a. [1 point] Write an equation that expresses the fact that it costs \$25 to buy 10 pounds of candy from Tasty Sweets.

**Answer:** \_\_\_\_\_

b. [1 point] Write an expression that gives the cost of purchasing  $k$  pounds of candy from Tasty Sweets.

**Answer:** \_\_\_\_\_

c. [2 points] Write an equation that expresses the fact that it costs \$10 more to buy 20 pounds of candy from the Candy Company than to buy 15 pounds of candy from the Candy Company.

**Answer:** \_\_\_\_\_

d. [2 points] The Candy Company claims that purchasing twice as much candy always costs less than twice as much. Express this statement as an inequality involving  $C$  and  $p$ .

**Answer:** \_\_\_\_\_

e. [2 points] Interpret the meaning of the equation  $T(C(15)) = 20$  in the context of this problem. (*Use a complete sentence.*)

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13. [5 points] (Your score on this problem was determined when you took the LA Post-Test.)