Interpreting linear functions

$$T = 10m + 40$$

Tim decides to cook a steak. The interior temperature, T, of the steak, in degrees Fahrenheit $(^\circ F)$, after cooking for m minutes is given in the equation above. What does the 10 mean in the equation?

A. The interior temperature is $10^\circ F$ when Tim starts cooking the steak.

B. The interior temperature of the steak increases by $10^\circ F$ for every minute it is cooked.

C. The interior temperature of the steak decreases by $10^\circ F$ for every minute it is cooked.

D. The interior temperature of the steak will increase a total of $10^\circ F$ while being cooked.

$$5.5B + 4R = 28$$

The above equation is true if Amit buys B pounds of blueberries and R pounds of raspberries at a farm where blueberries cost $\$5.50$ per pound and raspberries cost $\$4.00$ per pound. According to the equation, how much does Amit spend in total on both types of berries?

A. $\$9.50$

B. $\$22.00$

C. $\$28.00$

D. $\$56.00$

Interpreting linear functions

$$T = 0.25q + 87$$

Manon's statistics professor puts a bonus question on every test, which adds 0.25 points to a student's overall grade at the end of the term. The above equation gives Manon's current overall grade, T, after taking into account q extra credit questions answered correctly. What does the 87 mean in this equation?

A. Manon must get an 87 or above to pass.

B. Manon's average is an 87 before adding the extra credit.

C. After adding in her extra credit, Manon's average is an 87.

D. Manon's professor gave 87 opportunities for extra credit this term.

$$S = 40{,}000 + 500c$$

Caden started a new job selling dental chairs. He earns a base salary plus a commission for every chair he sells. The equation above gives Caden's annual salary, S, in dollars, after selling c dental chairs. Based on the equation above, what is Caden's base salary?

A. $\$39{,}500$

B. $\$40{,}000$

C. $\$40{,}500$

D. $\$50{,}000$

$$0.2B + 0.1S = C$$

Rhia is using the above equation to investigate the carbon footprint, C, in kilograms of carbon dioxide (CO_2) emissions, for her morning commute, during which S miles are by subway and B miles are by bus. How many kilograms of CO_2 per mile does the bus portion contribute to Rhia's carbon footprint?