## $\underline{\mathbf{2 d}^{\text {nd }} \text { Quarterly - SP: NS.1-3, RP.1-3 STUDY GUIDE }}$

## Calculator Active

1) It took Mya $2 / 5$ of an hour to ride her bike $2 \frac{1}{2}$ of a mile. How many miles per hour can Mya ride her bike?
2) To make 7 servings of fruit punch, Danielle used 4 cups of grape juice, 3 cups of water, and $\frac{3}{4}$ of a cup of sugar. How many cups of sugar will she use to make 2 servings of fruit punch?
3) Jackie's salary is proportional to the number of hours she works. Knowing that she made \$56 in 8 hours, create a graph that best models the relationship between the number of hours Jackie works and her salary?
4) Does this table represent a proportional relationship? If yes, what is the constant of proportionality?
5) 

$$
\begin{aligned}
& \text { The graph below shows the amount of money Janet earned at her new } \\
& \text { job. }
\end{aligned}
$$

| $x$ | $y$ |
| :---: | :---: |
| 5 | 15 |
| 6 | 18 |
| 7 | 21 |



How much does Janet earn per hour?

$$
\begin{array}{ll}
\text { A } \$ 7.50 & \text { C. } \$ 10.50 \\
\text { B. } \$ 10.00 & \text { D. } \$ 15.00
\end{array}
$$

6) According to this graph, how fast is the train moving in miles per hour?

A. 150
B. 300
C. 450
D. 600


How many miles does Linda travel in 1 hour?
A 6 miles
C. 12 miles
B. 9 miles
D. 18 miles
8) A 14 -ounce box of cereal costs $\$ 3.50$. Which equation correctly relates the price ( $p$ ) with the weight ( $w$ ) of the cereal?
A) $p=2.5 w$
B) $p=0.25 w$
C) $p=3.5 w$
D) $p=14 w$
9) Jax purchased an iPad mini on sale $20 \%$ off for $\$ 198.50$. What was the original price of the iPad mini?
A. $\$ 315.84$
B. $\$ 992.50$
C. $\$ 248.13$
D. $\$ 400$
10) A notebook costs $\$ 4.50$ plus sales tax. After sales tax, the notebook is $\$ 4.86$. What is the percent of tax?
A. $6 \%$
B. $7 \%$
C. $8 \%$
D. $9 \%$
11) Tommy, the car salesman, earns $\$ 275$ in commission on the sale of a car. If his rate of commission is $4 \%$, how much is the cost of the car?
A. $\$ 6,875$
B. $\$ 400.00$
C. $\$ 275.00$
D. $\$ 463.50$
12) Ryan bought a book for $\$ 15.00$, which includes $6 \%$ tax. What was the original price of the book?
A. $\$ 14.61$
B. $\$ 13.50$
C. $\$ 14.15$
D. $\$ 12.95$
13) Hannah paid $\$ 22.50$ for a dress that was originally marked $\$ 30.50$. What is the percent of discount?
A. $26 \%$
B. $58 \%$
C. $37 \%$
D. $158 \%$
14) Mrs. Syfert recently started wearing a FitBit to allow her to track her steps. She estimated that she would take 5000 steps in a day. She actually took 11,000 steps. Calculate her percent of error.
A. $23.5 \%$
B. $75.5 \%$
C. $67.5 \%$
D. $54.5 \%$
15) Sabrina earns $6.5 \%$ interest on an investment of $\$ 1,500$ each year. How much money will she earn after 6 years?
A. $\$ 58,500$
B. 75
C. $\$ 585.00$
D. $\$ 40$

