$7^{\text {th }}$ Grade Unit 3 Study Guide

1. Sassy Jeans are $\$ 90$ a pair. If they are $40 \%$ off today, how much will they cost?

GSE.7.RP. 3
2. The old pool held 70 gallons of water. The new pool holds $20 \%$ more than the old one. How much water does the new pool hold?

GSE.7.RP. 3
3. Who makes the least money per hour?

GSE.7.RP. 1
4. Who makes the most per hour?

| Person | Hours | Money |
| :---: | :---: | :---: |
| Ann | 20 | $\$ 200.00$ |
| Bob | 10 | $\$ 105.00$ |
| Cal | 16 | $\$ 184.00$ |

5. Rare Shoes had a regular price of $\$ 95$, but Jay found them on sale for $50 \%$ off. Including the $8 \%$ sales tax, what did Jay pay for the shoes?

GSE.7.RP. 3
6. Use the table to determine how many people ate if 426 grapes were used?

GSE.7.RP.2b | people | grapes |
| :---: | :---: |
|  | 1 |
| $\mathbf{5}$ |  |
|  | $\mathbf{5}$ |
|  | $\mathbf{3 0}$ |

7. A store pays $\$ 45$ for a radio. The store marks the radio up $30 \%$. What is the selling price for the radio?

GSE.7.RP. 3
8. Ted earns $\$ 7.50$ an hour. How many hours must he work to earn $\$ 90$ ?

GSE.7.RP. 1
9. Which of the following scenarios is represented by the graph?
A. For every cookie sold, the school earns $\$ 0.25$.
B. For every cookie sold, the school earns $\$ 0.50$.
C. For every cookie sold, the school earns $\$ 1.00$.
D. For every cookie sold, the school earns $\$ 2.00$.


GSE.7.RP.2d
10. Which equation represents the relationship between the number of miles traveled and how much it cost?
A. $y=x$
B. $y=2 x$
C. $y=3 x$
D. $y=4 x$

GSE.7.RP.2c

| miles $(\boldsymbol{x})$ | $\operatorname{cost}(\boldsymbol{y})$ |
| :---: | :---: |
| 1 | $\$ 4$ |
| 2 | $\$ 8$ |
| 3 | $\$ 12$ |
| 4 | $\$ 16$ |

11. Ari borrowed $\$ 2000$ and paid it back over 3 years. The simple interest rate was $2 \%$ annually. How much interest did Ari pay over the three years?

GSE.7.RP. 3
12. Bo bought a few items for $\$ 93.84$, not including tax. If the tax rate was $7 \%$, what was the total cost of these items, including tax?

GSE.7.RP. 3
13. The graph represents the relationship between $\boldsymbol{x}$ (the number of owls fed) and $\boldsymbol{y}$ (the number of dollars spent). What is the amount of money that will be spent to feed 10 owls?


GSE.7.RP. 2
14. A model plane is at the scale of 1 inch $=4$ feet. Which graph represents this?

GSE.7.RP. 2
A.

B.

C.

D.

15. It is $753 / 4$ miles from my house to the Georgia Aquarium. On my map it measures $11 / 2$ inches. What is the scale of the map?

GSE.7.G. 1
16. Tony's bill at the restaurant was $\$ 9.52$. If he wants to leave a $20 \%$ tip, how much is that?

GSE.7.RP. 3

Use the information in the box to answer questions 17 \& 18.
17. They want to leave a $20 \%$ tip. How much should they leave for the tip?

## Lunch for 4 people only $\$ 39.50$

GSE.7.RP. 3
18. If the sales tax is $5 \%$, how much tax do they owe?
19. The results of the first 100 students who voted are represented in the table. There are still 50 more students left to vote. Based on the early results, how many MORE votes do you expect Dan to get out of the 50 late voters?
C.7.RP. 3

| President | \# Votes |
| :---: | :---: |
| Bob | 25 |
| Carol | 65 |
| Dan | 10 |

20. A $\$ 300$ phone is on sale for $20 \%$ and you have a coupon for an extra $10 \%$ off. How much will you pay for the phone? (no tax) ?
21. Pat borrowed $\$ 2,000$ to help pay college expenses. The interest rate was $5 \%$ annually, and she will repay the loan in 4 years. How much total interest will she pay during the 4 years?

22. In the diagram above, figure $J K L M$ is similar to figure $Z W X Y$. Which of the following proportions can be used to find the value of $n$ ?

GSE.7.G. 1
A. $\frac{4}{n}=\frac{6}{12}$
B. $\frac{n}{4}=\frac{12}{6}$
C. $\frac{6}{n}=\frac{2}{4}$
D. $\frac{6}{n}=\frac{12}{4}$
23. The scale on a road map is $\mathbf{1}$ inch $=\mathbf{4 0}$ miles.

What is the actual length of a road that measures $2 \frac{1}{4}$ inches on the map?
24. Billy Bob earns a $4 \%$ commission for each car he sells. He sells a car for $\$ 18,750$.

How much commission does he make for selling that car?
GSE.7.RP. 3

