## Maintenance Sheet 8

Please show your work on a separate sheet of paper! NO GUESSING!
"I believe in myself and my ability to do my best" Unit 1: Operations with Rational Numbers

1. State the integer that best describes each.

- 5 yard gain $\qquad$
- a withdrawal of $\$ 40$ $\qquad$
- the stock rose 8 points $\qquad$
- a bill for $\$ 15$ $\qquad$
- a profit of $\$ 22$ $\qquad$
- $9^{\circ}$ below zero $\qquad$
- 125 feet below sea level $\qquad$
- a bank deposit of $\$ 35$ $\qquad$
- sea level $\qquad$

3. Simplify.
4. Where would $|-7|$ be on the number line?

$$
-1.6+5.7+-3.2
$$

A) 7 units to the right of zero.
A) 0.8
B) 7 units to the left of zero
B) 0.9
C) 7 units to the left and right of zero
D) 7 units from zero
C) 1
D) 1.1
4. Multiply. $-10 \times 33$

Find the sum or difference.
5. $253-(-356)=$
6. $253-356=$

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7. In January Mary starts off with $\$ 50$ in her checking account. During the month she deposits $\$ 235.89$ and writes checks totaling $\$ 45.77$. At the end of the month she decides to take half of the money left in the account and deposit it into her savings account. How much did she deposit in her savings account?
A) $\$ 142.94$
B) $\$ 165.83$
C) $\$ 120.06$
D) $\$ 240.12$
8. What is the multiplicative inverse of $2 \frac{2}{3}$ ?
9. The table below shows the low temperatures of four cities on one winter night.

Low Temperatures of
Four Cities One Night

| City | Temperature |
| :--- | :---: |
| Boston | $3^{\circ} \mathrm{F}$ |
| Lowell | $0^{\circ} \mathrm{F}$ |
| Springfield | $-8^{\circ} \mathrm{F}$ |
| Worcester | $-5^{\circ} \mathrm{F}$ |

Which city had the lowest temperature that night?
A) Boston
B) Lowell
C) Springfield
D) Worcester
10. What is the product of $-\frac{2}{3}\left(-\frac{9}{8} x+\frac{3}{2}\right)$ written as an expression in simplest form?
11. For every dollar Oscar earns, he saves $\$ 0.12$. Oscar has saved $\$ 41.40$. How much has Oscar earned?
A) $\$ 41.28$
B) $\$ 41.52$
C) $\$ 345.00$
D) $\$ 4,968.00$

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## Unit 2: Expressions and Equations

12. Which mathematical expression means 7 more than the product of 3 and $x$ ?
A) $3+x+7$
B) $3 \div x+7$
C) $7 x+3$
D) $3 x+7$
13. Which means "the sum of 8 and 4 times a number is 36 "?
A) $8 x+4=36$
B) $4 x+8=36$
C) $4(x+8)=36$
D) $4 x=36+8$
14. Jeniah bought some packages of pens. She bought one package containing 5 pens and $n$ packages containing 2 pens each. Which of the following expressions could be used to find the total number of pens that Jeniah bought?
A) 7 n
B) 10 n
C) $5 n+2$
D) $2 n+5$
15. Bethany's family can eat $(13 h-6)$ hotdogs. Clark's family can eat $(10 h+3)$ hotdogs. Which expression shows the difference between the number of hotdogs Bethany's family can eat and the number of hotdogs Clark's family can eat?
A) $3 h-9$
B) $3 h-3$
C) $-3 h+9$
D) $-3 h+3$
16. Rewrite the expression $t(x+y)$ as the sum of two terms to show the effect $t$ has on the other two variables using the distributive property.
17. Ralph simplified the expression

$$
\begin{gathered}
15\left(\frac{1}{3}+\frac{2}{5}\right) \\
\text { to } \\
(5+6) .
\end{gathered}
$$

Which of the following properties of the real numbers did Ralph use?
A) associative property of multiplication
B) commutative property of multiplication
C) distributive property
D) multiplicative identity property

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$6^{\text {th }}$ Grade Review
18 . What is the LCM of 5,4 , and 10 ?
19. Which list of numbers contains only common multiples of 4 and 12 ?
a. $4,8,12,16,20$
b. $12,24,36,48,60$
c. $8,12,16,20,24$
d. $12,16,20,24,28$
20. What is the GCF of 36 and 42 ?
a. 12
b. 6
c. 2
d. 3
21.The ordered pair $(-4,-12)$ is locaed in which quadrant of a coordinate plane?
a. IV
b. III
c. II
d. I


## Vocabulary Terms To Study

| Property | Addition | Multiplication |
| :---: | :---: | :---: |
| Commutative Property | You can add in any order $\begin{aligned} & a+b=b+a \\ & 2+4=4+2=6 \end{aligned}$ | You can multiply in any order $\begin{aligned} & a \times b=b \times a \\ & 3 \times 4=4 \times 3=12 \end{aligned}$ |
| Associative Property | When you add, you can group the numbers in any combination $\begin{aligned} & a+(b+c)=(a+b)+c \\ & 1+(3+4)=(1+3)+4 \end{aligned}$ | When you multiply, you can group the numbers in any combination $\begin{aligned} & a \times(b \times c)=(a \times b) \times c \\ & 2 \times(3 \times 5)=(2 \times 3) \times 5 \end{aligned}$ |
| Identity Property | The sum of zero and any number is the number $\begin{aligned} & a+0=a \\ & 4+0=4 \end{aligned}$ | The product of 1 and any number is the number $\begin{aligned} & a \times 1=a \\ & 3 \times 1=3 \end{aligned}$ |

