## Lessons 1.5-1.7

## MULTIPLE CHOICE

1. HYBRID CAR A hybrid car gets about 60 miles per gallon of gas in the city and about 51 miles per gallon on the highway. During one week, the hybrid uses 12 gallons of gas and travels 675 miles. How much gas was used on the highway? TEKS a. 6
(A) 4 gallons
(B) 5 gallons
(C) 7 gallons
(D) 8 gallons
2. POPCORN A popcorn manufacturer's ideal weight for a bag of microwave popcorn is 3.5 ounces, with a tolerance of 0.25 ounce. What is the range of acceptable weights $w$ (in ounces) of a bag of popcorn? TEKS a. 2
(F) $w \geq 3.75$
(G) $w \leq 3.25$
(H) $-0.25 \leq w \leq 0.25$
(J) $3.25 \leq w \leq 3.75$
3. LIQUID OXYGEN Oxygen exists as a liquid between $-369^{\circ} \mathrm{F}$ and $-297^{\circ} \mathrm{F}$, inclusive. Which compound inequality gives the range of temperatures $T$ for liquid oxygen? TEKS a. 2
(A) $-369 \leq T \leq-297$
(B) $-369<T<-297$
(C) $-297 \leq T \leq-369$
(D) $-297<T<-369$
4. FOOTBALL A football kicker scores 1 point for each extra point and 3 points for each field goal. One season, a kicker made 34 extra points and scored a total of 112 points. How many field goals did the kicker make? TEKS a. 5
(F) 13
(G) 26
(H) 48
(J) 78
5. VIDEO RENTAL A video store rents movies for $\$ 2.95$ each. Recently, the store added a special allowing an unlimited number of rentals for $\$ 15.95$ per month. How many movies must you rent in a month in order to save money by using the special? TEKS a. 6
(A) 5 or less
(B) exactly 6
(C) 6 or more
(D) 13 or more
6. SWIMMING POOL You are draining a swimming pool. The table shows the depth of the water at different times. How long will it take the pool to empty? TEKS a. 6

| Time (h) | 0 | 1 | 2 | 3 |
| :---: | :---: | :---: | :---: | :---: |
| Depth (ft) | 12 | 10.5 | 9 | 7.5 |

(F) 4.8 hours
(G) 6.7 hours
(H) 8 hours
(J) 24 hours
7. TRIANGLE INEQUALITY The triangle inequality relationship from geometry states that the sum of the lengths of any two sides of a triangle is greater than the length of the third side. If the lengths of the three sides of a triangle are $x, 2 x$, and 9 , which of the following is a possible value of $x$ ? TEKS $a .1$
(A) 2
(B) 3
(C) 5
(D) 10

## GRIDDED ANSWER (6) (3) (4) (5) (6) (8) (8) (9)

8. SUMMER JOB You work 45 hours per week for a construction company during the summer. You earn $\$ 8$ per hour for office work and $\$ 9$ per hour for outside work. You earn $\$ 399$ one week. How many hours did you work outside that week? TEKS a. 5
9. MAGIC TRICK For a rope trick, a magician cuts a 72 inch piece of rope into three pieces of different lengths. The length of one piece must be the mean of the lengths of the other two pieces. Find the length of the second-longest piece. TEKS $a .6$

