

36. **VEHICLE WEIGHTS** According to a state law for vehicles traveling on state roads, the maximum total weight of the vehicle and its contents depends on the number of axles the vehicle has.

Maximum Total Weights			
			
2 axles 34,000 lb	3 axles 54,000 lb	4 axles 69,000 lb	5 axles 80,000 lb

For each type of vehicle, write and solve an inequality to find the possible weights  $w$  (in pounds) of a vehicle when its contents weigh 14,200 pounds. Can a vehicle that has 2 axles and weighs 20,000 pounds hold 14,200 pounds of contents? *Explain.*

37. **MULTIPLE REPRESENTATIONS** Your friend is willing to spend no more than \$17,000 for a new car. The car dealership offers \$3000 cash back for the purchase of a new car.
- Making a Table** Make a table of values that gives the final price  $y$  of a car after the cash back offer is applied to the original price  $x$ . Use the following values for  $x$ : 19,459, 19,989, 20,549, 22,679, 23,999.
  - Writing an Inequality** Write and solve an inequality to find the original prices of the cars that your friend will consider buying.

38. **TAKS REASONING** A 4-member track team is trying to match or beat last year's winning time of 3 minutes 41.1 seconds for a 1600 meter relay race. The table shows the 400 meter times for the first three athletes.

Athlete	Time (sec)
1	53.34
2	56.38
3	57.46

- Calculate** What are the possible times that the last athlete can run 400 meters in order for the team to match or beat last year's time?
  - Decide** So far this season the last athlete's fastest 400 meter time is 53.18 seconds, and his average 400 meter time is 53.92 seconds. In this race the last athlete expects to run faster than his slowest time this season. Is it possible for the team to fail to meet its goal? *Explain.*
39. **CHALLENGE** A public television station wants to raise at least \$72,000 in a pledge drive. The station raised an average of \$5953 per day for the first 3 days and an average of \$6153 per day for the next 3 days. What are the possible additional amounts that the station can raise to meet its goal?

## MIXED REVIEW FOR TAKS

**TAKS PRACTICE** at classzone.com

**REVIEW**

Lesson 1.6;  
TAKS Workbook

40. **TAKS PRACTICE** Which linear function includes the points  $(-2, 4)$ ,  $(0, 5)$ , and  $(2, 6)$ ? **TAKS Obj. 3**
- (A)  $y = -2x + 5$     (B)  $y = \frac{x}{2} + 5$     (C)  $y = -\frac{x}{2} + 5$     (D)  $y = 2x + 5$

**REVIEW**

TAKS Preparation  
p. 480;  
TAKS Workbook

41. **TAKS PRACTICE** The circumference of a circle is doubled. By how many times does the diameter increase? **TAKS Obj. 8**
- (F) 1    (G) 2    (H) 3    (J) 4