Solve the inequality. Graph your solution.

4. $\dfrac{x}{-4} > 12$ **5.** $\dfrac{m}{-7} < 1.6$ **6.** $5v \geq 45$ **7.** $-6n < 24$

TAKS

EXAMPLE 4 **TAKS PRACTICE: Multiple Choice**

A student pilot plans to spend 80 hours on flight training to earn a private license. The student has saved $6000 for training. Which inequality can you use to find the possible hourly rates r that the student can afford to pay for training?

Ⓐ $80r \geq 6000$ Ⓑ $80r \leq 6000$ Ⓒ $6000r \geq 80$ Ⓓ $6000r \leq 80$

Solution

The total cost of training can be at most the amount of money that the student has saved. Write a verbal model for the situation. Then write an inequality.

ELIMINATE CHOICES
You need to multiply the hourly rate and the number of hours, which is 80, not 6000. So, you can eliminate choices C and D.

Training time (hours)	·	Hourly rate (dollars/hour)	≤	Amount saved (dollars)
85	·	r	≤	6800
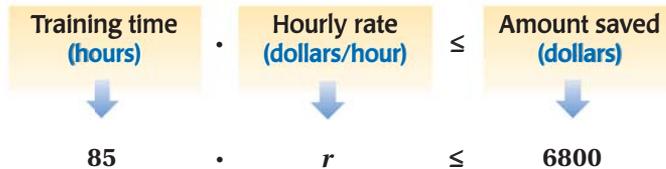
▶ The correct answer is B. Ⓐ **Ⓑ** Ⓒ Ⓓ

EXAMPLE 5 **Solve a real-world problem**

PILOTING In Example 4, what are the possible hourly rates that the student can afford to pay for training?

Solution

$85 \cdot r \leq 6800$ **Write inequality.**

$\dfrac{85r}{85} \leq \dfrac{6800}{85}$ **Divide each side by 80.**

$r \leq 80$ **Simplify.**

▶ The student can afford to pay at most $80 per hour for training.

✓ **GUIDED PRACTICE** for Examples 4 and 5

8. **WHAT IF?** In Example 5, suppose the student plans to spend 90 hours on flight training and has saved $6300. Write and solve an inequality to find the possible hourly rates that the student can afford to pay for training.