Name: _____

Linear Relationships Word Problems

Solve each problem.

1. A candle is 46 cm tall and burns 2 cm per hour. How tall is it after 3 hours?

Answer: _____

2. A water tank holds 407 gallons and drains 13 gallons per minute. Write an equation for the water y after x minutes.

Answer: _____

3. A plumber charges a $41 visit fee plus $22 per hour. Write an equation for the cost y after x hours.

Answer: _____

4. Sam has $20 and saves $7 each week. What are the slope and y-intercept of this situation, and what do they mean?

Answer: _____

5. A car rental costs $105 for 2 days and $269 for 6 days. What is the cost per day (the rate of change)?

Answer: _____

6. A candle is 51 cm tall and burns 3 cm per hour. How tall is it after 3 hours?

Answer: _____

7. A water tank holds 310 gallons and drains 15 gallons per minute. Write an equation for the water y after x minutes.

Answer: _____

8. A plumber charges a $40 visit fee plus $23 per hour. Write an equation for the cost y after x hours.

Answer: _____

9. Sam has $16 and saves $3 each week. What are the slope and y-intercept of this situation, and what do they mean?

Answer: _____

10. A car rental costs $84 for 2 days and $246 for 8 days. What is the cost per day (the rate of change)?

Answer: _____

Name: **ANSWER KEY**

Linear Relationships Word Problems

Solve each problem.

1. A candle is 46 cm tall and burns 2 cm per hour. How tall is it after 3 hours?

Answer: 40 cm

2. A water tank holds 407 gallons and drains 13 gallons per minute. Write an equation for the water y after x minutes.

Answer: $y = -13x + 407$

3. A plumber charges a $41 visit fee plus $22 per hour. Write an equation for the cost y after x hours.

Answer: $y = 22x + 41$

4. Sam has $20 and saves $7 each week. What are the slope and y-intercept of this situation, and what do they mean?

Answer: slope 7 ($ per week), y-int

5. A car rental costs $105 for 2 days and $269 for 6 days. What is the cost per day (the rate of change)?

Answer: $41 per day

6. A candle is 51 cm tall and burns 3 cm per hour. How tall is it after 3 hours?

Answer: 42 cm

7. A water tank holds 310 gallons and drains 15 gallons per minute. Write an equation for the water y after x minutes.

Answer: $y = -15x + 310$

8. A plumber charges a $40 visit fee plus $23 per hour. Write an equation for the cost y after x hours.

Answer: $y = 23x + 40$

9. Sam has $16 and saves $3 each week. What are the slope and y-intercept of this situation, and what do they mean?

Answer: slope 3 ($ per week), y-int 16 (start)

10. A car rental costs $84 for 2 days and $246 for 8 days. What is the cost per day (the rate of change)?

Answer: $27 per day