

Chapter 6 Test

For #1 to #3, select the best answer.

1. What is the slope of the line whose rise is 10 and run is 30?

A 5
B 0.8
C $\frac{1}{3}$
D $\frac{2}{50}$

2. For which table does the graph have a constant slope?

A

| x | y |
|---|---|
| 1 | 2 |
| 2 | 2 |
| 3 | 4 |
| 4 | 4 |
| 5 | 6 |

B

| x | y |
|---|----|
| 0 | 1 |
| 2 | 4 |
| 4 | 6 |
| 6 | 8 |
| 8 | 10 |

C

| x | y |
|---|----|
| 0 | 0 |
| 1 | 5 |
| 2 | 10 |
| 3 | 15 |
| 4 | 20 |

D

| x | y |
|---|----|
| 0 | 3 |
| 1 | 6 |
| 2 | 9 |
| 3 | 10 |
| 4 | 15 |

3. If each table of values is graphed, which line would have the greater slope?

A

| x | y |
|---|----|
| 0 | 0 |
| 1 | 9 |
| 2 | 18 |
| 3 | 27 |
| 4 | 36 |



B

| x | y |
|----------|----------|
| 0 | 20 |
| 1 | 21.5 |
| 2 | 23 |
| 3 | 24.5 |
| 4 | 26 |

C

| x | y |
|----------|----------|
| 0 | 60 |
| 1 | 65 |
| 2 | 70 |
| 3 | 75 |
| 4 | 80 |

D

| x | y |
|----------|----------|
| 0 | 100 |
| 1 | 101 |
| 2 | 102 |
| 3 | 103 |
| 4 | 104 |

4. The table shows a car's speed. Determine the slope of the line.

| Time (sec) | Speed (mph) |
|-------------------|--------------------|
| 0 | 0 |
| 2 | 20 |
| 4 | 40 |
| 6 | 60 |
| 10 | 100 |

5. Tom spots an eagle on the top of a 60-foot tree. The angle between Tom and the eagle is 30° . How far is the eagle from him?
6. The slope of a stretch of highway is supposed to be 0.1. If the highway drops 60 feet for every 500 feet, is the slope greater than or less than the requirement? Show your thinking.
7. A carpenter needs to know the angle of a roof. He measures the rise as 3 feet for a run of 6 feet. What is the angle of the roof, rounded to the nearest degree?
8. Emily earned \$8 per hour when she started her job. After six months, she received an increase of \$2 per hour. Six months later, she received another increase of \$2 per hour. Graph Emily's earnings over the last 18 months.
- Does the graph show a constant rate of change in earnings? Explain.
 - Determine the slope of the line that represents Emily's pay increases.
 - Describe each slope as a rate of change.

