

Name: _____

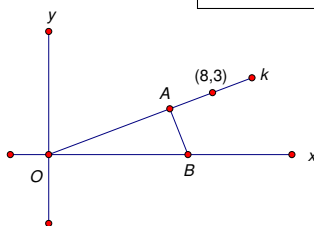
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1. C

2. 192

3. Each coworker is required to contribute $\frac{y}{m}$ dollars. If p of the coworkers fail to contribute, they will be short $\frac{py}{m}$ dollars. To make up for this, the $m - p$ rest of the coworkers must pay an additional $\frac{py}{m} \div (m - p) = \frac{py}{m(m-p)}$ dollars. E

4. The slope of line k is $\frac{3}{8}$. In order for line m to intersect \overline{AB} , it must be between line k and the x -axis. This means the slope of line m must be greater than 0 and less than $\frac{3}{8}$. For n , the slope of line m , any value of n such that $0 < n < \frac{3}{8}$ will suffice.



5. There are exactly three, and these integers are 21, 22, and 26. D

6. E

7. If k is a positive integer, then $2k$ is an even integer and $2k + 1$ is an odd integer. If we double that, we get $4k + 2$, an even integer which is twice the value of an odd integer. E

8. Since there are 18 arcs of each length, we get the following equation:

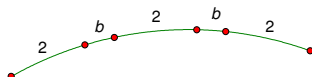
$$18(2) + 18b = 45$$

$$36 + 18b = 45$$

$$18b = 9$$

$$b = \frac{1}{2}$$

Now the degree measure of each of arc of length $b = \frac{1}{2}$ must be $\frac{1}{45} \cdot 360^\circ = 4^\circ$. A



9. A



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10. Since adjacent sides of a rectangle are perpendicular, then the product of two adjacent sides will be 1. Then the product of the slopes of all four sides of a rectangle is 1. D