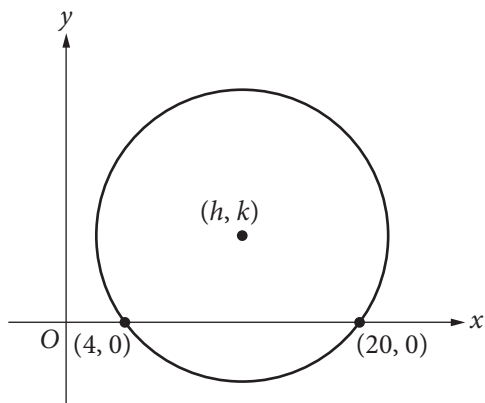




31



In the xy -plane above, the circle has center (h, k) and radius 10. What is the value of k ?

32

In the xy -plane, line ℓ has a y -intercept of -13 and is perpendicular to the line with equation $y = -\frac{2}{3}x$. If the point $(10, b)$ is on line ℓ , what is the value of b ?

33

Rhesus factor	Blood type			
	A	B	AB	O
+	33	9	3	37
-	7	2	1	x

Human blood can be classified into four common blood types—A, B, AB, and O. It is also characterized by the presence (+) or absence (–) of the rhesus factor. The table above shows the distribution of blood type and rhesus factor for a group of people. If one of these people who is rhesus negative (–) is chosen at random, the probability that the person has blood type B is $\frac{1}{9}$. What is the value of x ?



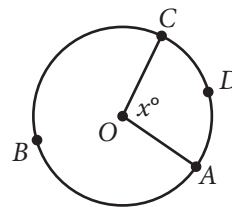
5

$$C = 75h + 125$$

The equation above gives the amount C , in dollars, an electrician charges for a job that takes h hours. Ms. Sanchez and Mr. Roland each hired this electrician. The electrician worked 2 hours longer on Ms. Sanchez's job than on Mr. Roland's job. How much more did the electrician charge Ms. Sanchez than Mr. Roland?

- A) \$75
- B) \$125
- C) \$150
- D) \$275

6



The circle above has center O , the length of arc \widehat{ADC} is 5π , and $x = 100$. What is the length of arc \widehat{ABC} ?

- A) 9π
- B) 13π
- C) 18π
- D) $\frac{13}{2}\pi$

7

If $\frac{8}{x} = 160$, what is the value of x ?

- A) 1,280
- B) 80
- C) 20
- D) 0.05