

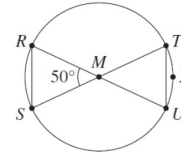
25. The sides of a square are 3 cm long. One vertex of the square is at (3,0) on a square coordinate grid marked in centimeter units. Which of the following points could also be a vertex of the square?

- A. ( 6, 0)
- B.  $\left( 4\frac{1}{2}, 1\frac{1}{2} \right)$
- C. ( 1, 2)
- D. ( 0, -2)
- E. (-3, 0)

27. John Jones has decided to go into the business of producing and selling boats. In order to begin this venture, he must invest \$10 million in a boat production plant. The cost to produce each boat will be \$7,000, and the selling price will be \$20,000. Accounting for the cost of the production plant, which of the following expressions represents the profit, in dollars, that John will realize when  $x$  boats are produced and sold?

- A.  $13,000x - 10,000,000$
- B.  $27,000x - 10,000,000$
- C.  $9,973,000x$
- D.  $20,000x$
- E.  $13,000x$

26. In the circle shown below,  $M$  is the center and lies on  $\overline{RU}$  and  $\overline{ST}$ . Which of the following statements is NOT true?



- A.  $\angle TUM$  measures  $65^\circ$
- B.  $\overline{TU}$  is parallel to  $\overline{RS}$
- C.  $\widehat{TXU}$  measures  $50^\circ$
- D.  $\overline{RM} \cong \overline{TM}$
- E.  $\overline{RS} \cong \overline{SM}$

28. If  $2x^2 + 6x = 36$ , what are the possible values of  $x$  ?

- A. -12 and 3
- B. -6 and 3
- C. -3 and 6
- D. -3 and 12
- E. 12 and 15

29. As a class experiment, a cart was rolled at a constant rate along a straight line. Shawn recorded in the chart below the cart's distance ( $x$ ), in feet, from a reference point at the start of the experiment and for each of 5 times ( $t$ ), in seconds.

$t$	0	1	2	3	4	5
$x$	10	14	18	22	26	30

Which of the following equations represents this data?

- A.  $x = t + 10$
- B.  $x = 4t + 6$
- C.  $x = 4t + 10$
- D.  $x = 10t + 4$
- E.  $x = 14t$

30. To increase the mean of 4 numbers by 2, by how much would the sum of the 4 numbers have to increase?

- F. 2
- G. 4
- H. 6
- J. 8
- K. 16

### Bellwork Answers:

- 25. A
- 26. K
- 27. A
- 28. G
- 29. C
- 30. J