

# Monday, November 28

A circle with center  $(2, 1)$  has a tangent to the circle at  $(3, 6)$ . What is the equation of the tangent?

a.  $y - 5x = -9$

b.  $5y - x = 27$

c.  $y + 5x = 21$

d.  $x + 5y = 21$

e.  $5y + x = 33$



# Tuesday, November 29

The area of a rhombus is 20 square centimeters, and one diagonal is twice the length of the other. What is the length of a side of the rhombus?

f. 5 

g. 10

h.  $\sqrt{5}$

j.  $\sqrt{10}$

k.  $\sqrt{30}$

# Wednesday, November 30

If  $12 + 6n$  is 20 percent bigger than  $k$ , what is  $k$ ?

*a.*  $\frac{12+6n}{5}$

*b.*  $10 + 5n$  

*c.*  $2 + n$

*d.*  $\frac{6(12+6n)}{5}$

*e.*  $20 + 10n$

# Thursday, December 1

Jeremy wants to put out snacks for unexpected guests, and he notices that he has 2 opened cans of mixed nuts. The capacity of the larger can is 3 times the capacity of the smaller can. Jeremy estimates that the smaller can is about  $\frac{3}{4}$  full of nuts and the larger can is about half full. He pours all the nuts from the smaller can into the larger can. After he does this, about how full is the larger can?

f.  $\frac{3}{4}$  

g.  $\frac{5}{6}$

h.  $\frac{17}{18}$

j. Completely full

k. Overflowing

# Friday, December 2

Which of the following is the graph of  $y = \frac{2x^2 + x - 6}{x + 2}$ ?

