

Due: Tue, Mar 14, 2017 06:30 PM EDT

Question

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

**Description**

Created by J. Skufca on 1 Sep 2015 as a possible ABC II test version

**1.** Question Details

ABC TangLine V1 slope-int form mod1 [2644848]

Find the equation for the line tangent to the curve  $y = -3 + x^3$  at  $x = 2$ . Give your answer in *slope-intercept* form.**2.** Question Details

ABC trig\_inverse arctan [2639320]

Find the exact value of:

(a)  $\arctan\left(\frac{1}{\sqrt{3}}\right)$

(Enter your answer in radians.)

**3.** Question Details

ABC SPECIAL Q3 V1 [2678914]

Solve for  $a$  :

$$1 + \frac{1}{a} = 3.$$

$a =$

**4.** Question Details

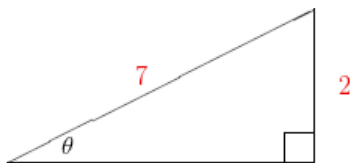
ABC complete\_square V1 [2599222]

Rewrite by completing the square:

$x^2 - 10x + 28 =$

**5.** Question Details

ABC SPECIAL Q5 V1 [2679070]



$\cos(\theta) =$

6. Question Details

ABC SPECIAL Q6 V1 [2679080]

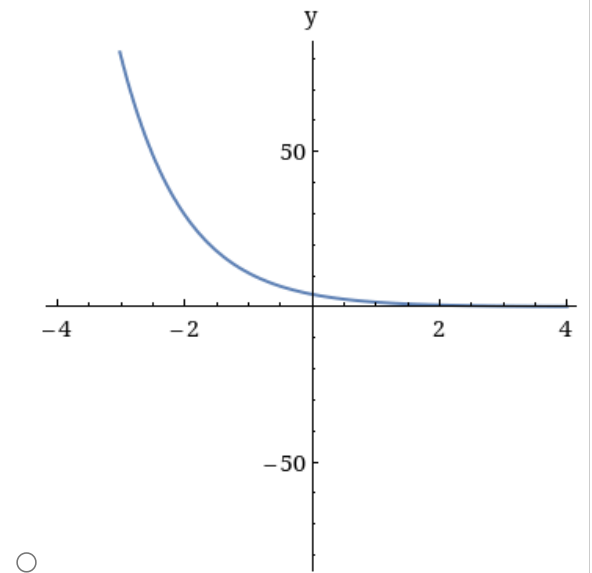
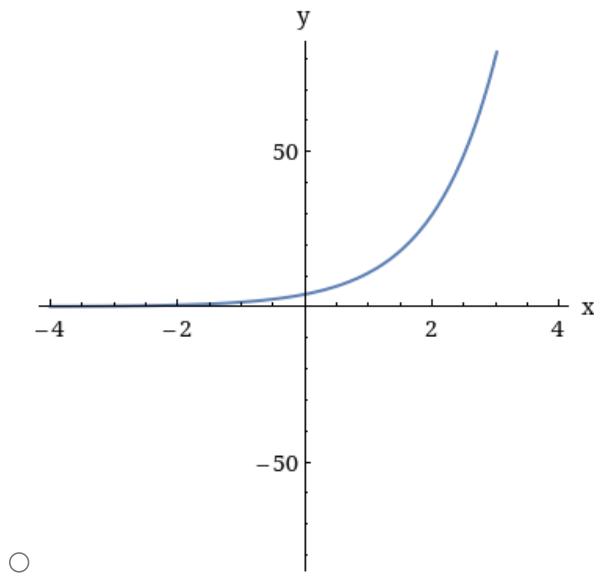
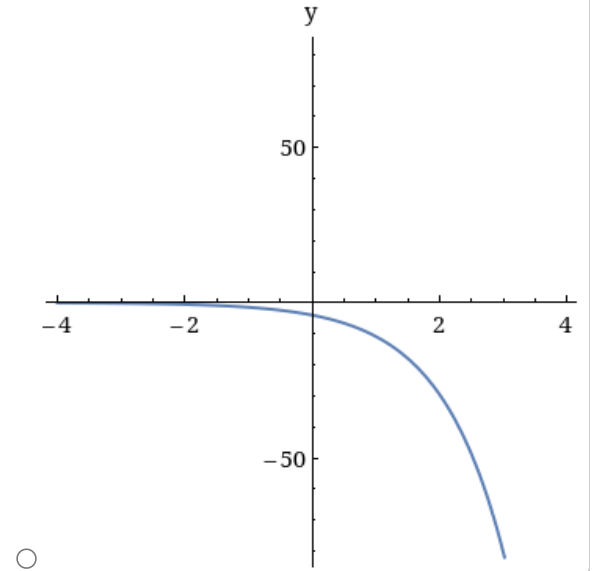
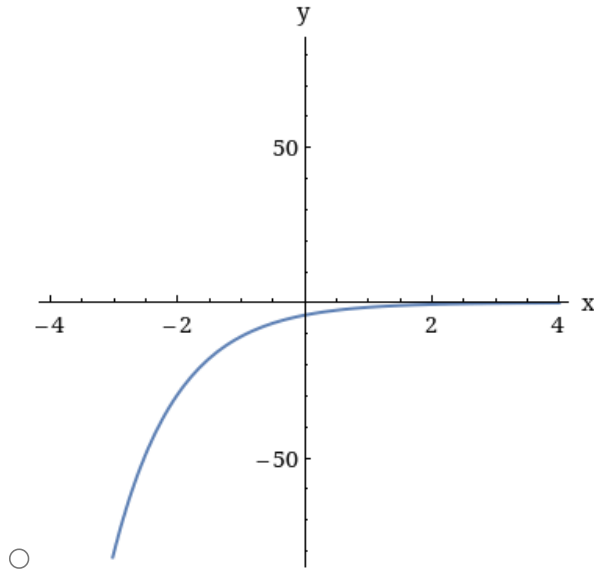
Solve for  $s$  :

$$3e^{5s} = 1.$$

 $s =$ 


7. Question Details

ABC SPECIAL Q7 [2679086]

Which graph shows the function  $y=f(x) = -4e^{-x}$ 

8. Question Details

ABC SPECIAL Q8 V1 [2679131]

Solve for  $u$  :

$$5u^{1/3} = 6.$$

 $u =$ 

9. Question Details

ABC SPECIAL Q9 V1 [2679364]

If  $f(t) = 2t^4 + 5t^2 - 8t - 10$ ,  
then find the derivative $f'(t) =$ 

10. Question Details

ABC SPECIAL Q10 V1 [2679369]

If  $f(s) = 5\ln(s)$ ,  
then find the derivative $f'(s) =$ 

11. Question Details

ABC SPECIAL Q11 V1 [2679393]

If  $y = \sqrt{x+3}$ ,  
then find the derivative $\frac{dy}{dx} =$ 

12. Question Details

ABC SPECIAL Q12 V1 [2679396]

If  $y = \ln(1-x)$ ,  
then find the derivative $\frac{dy}{dx} =$ 

13. Question Details

ABC SPECIAL Q13 V1 [2679452]

Find the derivative of  $f(x) = (3x^2 - 4)\tan(x)$ . $f'(x) =$ 

14. Question Details

ABC SPECIAL Q14 V2 [2679528]

Find the derivative of  $f(x) = \frac{e^x + 2}{x}$ . $f'(x) =$

