

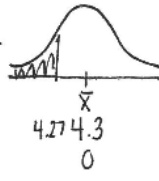
Name Key

Review # 9

June 2018 Regents

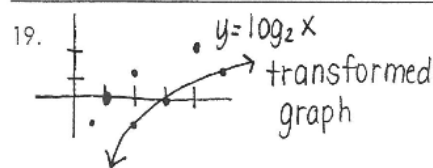
Due: Mon. 6/7/19

Work must be shown for each question in order to receive credit.

17.  $Z = \frac{4.27 - 4.3}{.05} = -.6$
 Normcdf(-100, -.6)
 = .2742530646

18. $100e^{kd} = 100\left(\frac{1}{2}\right)^{d/8}$ OR
 $e^{kd} = \left(\left(\frac{1}{2}\right)^{1/8}\right)^d$ $\left(\frac{1}{2}\right)^{1/8} \sim .917$
 $\therefore e^k = \left(\frac{1}{2}\right)^{1/8}$ then
 $k \ln e = \ln \left(\frac{1}{2}\right)^{1/8}$ e to each
 $k \sim .087$ choice

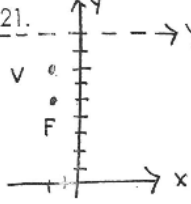
2 1



20. $\sqrt{16x^2} \cdot x^{2/3} + \sqrt[3]{8x^5}$
 $4x \cdot x^{2/3} + 2x^{5/3} = 4x^{5/3} + 2x^{5/3}$
 $= 6x^{5/3}$
 $x \cdot x^{2/3} = x^{5/3}$
 $= 6\sqrt[3]{x^5}$

4 2

OR $\pi \rightarrow x$ compare decimals

21.  $y = 9$ vertex: (-2, 7)
 $x^2 = -$
 $4p = 4(-2) = -8$
 $(x+2)^2 = -8(y-7)$

22. pick primes for a, b, c.
 $a = 2, b = 3, c = 5$
 then:
 $x = 100$
 $y = 38$
 $z = 31$
 1) $100 \neq 38 - 31$
 2) $100 \neq 38 + 31$
 3) $100 \neq 38 - 2(31)$
 4) $100 = 38 + 2(31)$

4 4

23. Which set of parenthesis
 is the same as 1.068 :
 $\left(1.068^{\frac{1}{365}}\right)^{365t}$
 power to power, mult
 $\frac{1}{365} \cdot 365t = 1t$

24. need $x = \text{ounces}$
 $\text{amt } x + \text{amt } y$ $y = \text{pounds}$
 $\frac{124}{x + 16y}$ $16y \rightarrow \text{ounces}$

4 3

$$31. M = \frac{137250(1.003)(1.003)^{360}}{(1.003)^{360} - 1}$$

$M = \$624$
variable list
 $M = ?$

$$P = 152500 - 15250 = 137250$$

$$r = .036 \rightarrow \frac{r}{12} = .003$$

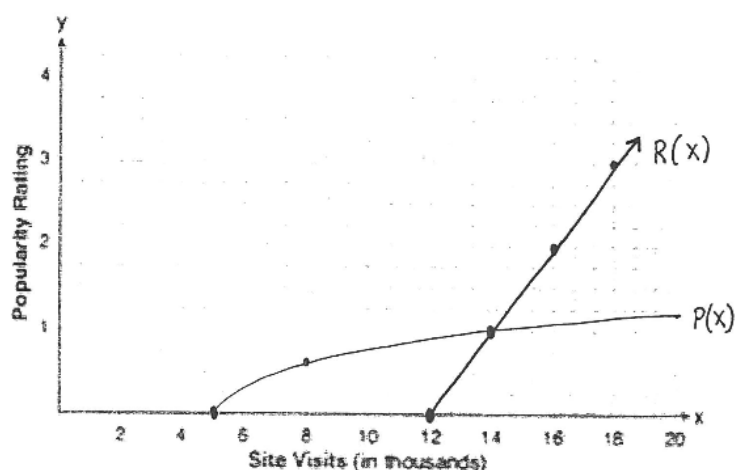
$$n = 30 \cdot 12 = 360$$

$$32. \begin{array}{l} \text{Diagram: A right triangle in the second quadrant with a hypotenuse of length } \sqrt{5}, \text{ a vertical side of length } 2, \text{ and a horizontal side of length } -1. \text{ The angle } \theta \text{ is measured from the positive x-axis.} \\ (-1)^2 + (2)^2 = \text{hyp}^2 \\ 5 = \text{hyp}^2 \\ \sin \theta = -\frac{1}{\sqrt{5}} \end{array}$$

Asked for exact value,
no decimals

37.

$$P(16) = \log(16-4) = 1.1$$



They will be the same
for 14,000 weekly visits