

PRECALCULUS:

Homework
2/26-3/2

due: Tuesday:

Solve for x :

1. $x^{\frac{2}{3}} = 25$

5. $x^{-3} = 64$

2. $4x^{\frac{1}{3}} = 28$

6. $8x^{-4} = 128$

3. $(5x)^{\frac{1}{2}} = 15$

7. $x^{-4} = .0001$

4. $6x^{-\frac{1}{2}} = 3$

8. $(2x)^{\frac{3}{2}} = 64$

Wednesday: read. pp. 276-281

1. Graph: a. $y = 2^x$ c. $y = 2^{x-3}$ e. $y = 2^{|x|}$

b. $y = 1 + 2^x$ d. $y = 4\left(\frac{1}{2}\right)^x$

2. Determine, without graphing, which functions are increasing and which functions are decreasing:

a. $y = 4^{-x}$ c. $y = .3^x$ e. $y = 1.3^x$

b. $y = 6^x$ d. $y = \left(\frac{1}{5}\right)^x$ f. $y = 2^{x+1}$

Thursday: read pp. 711-715

1. pg. 715 / #1, 18, 20

2. Find the numerical coefficient of the given term in the binomial expansion:

a. x^5y^3 term, $(x + y)^8$ b. x^4 term, $(x + 2)^6$

Friday: read pp. 281-283

Find e^2 using its binomial expansion carried out until $n = 5$.

Monday: read pp. 320-321

1. pg. 331 / #2, 4, 6

2. Solve for x :

a. $3^{-x} = 27$

d. $10^x = .01$

g. $\frac{2^{x^2}}{2^x} = 64$

b. $5^x = 1$

e. $8^{x-2} = 2^{12}$

h. $\sqrt[3]{\frac{8^{x-1}}{16^x}} = 32$

c. $\left(\frac{9}{16}\right)^x = \frac{4}{3}$

f. $16^{x+1} = 64^{x-2}$