

Algebra II Homework #19

- 1) Simplify: $\frac{7-9i}{9i}$
- 2) Simplify: i^{97}
- 3) Simplify: $\sqrt{-294} \cdot \sqrt{-363}$
- 4) Solve: $\sqrt{2x+6} - 2 = \sqrt{x-1}$
- 5) Simplify: $(7i+4)(5i+8)$
- 6) Graph: $y = 2^x$
- 7) Expand: $\log_3\left(\frac{x^2 y^5}{a^3}\right)$
- 8) Simplify: $3 \log_5 x - 7 \log_5 y + 4 \log_5 a$
- 9) Graph: $f(x) = 3^{-x}$
- 10) Expand: $\log_4\left(\frac{x^5 \sqrt{y}}{a^6}\right)$
- 11) Simplify: $\frac{2}{3} \log_2 a - 4(\log_2 y + 2 \log_2 x)$
- 12) Graph: $y = 2^{2x-1}$
- 13) Expand: $\log_c\left(\frac{\sqrt[5]{a^3}}{x^6 y^2}\right)$
- 14) Simplify: $4 \log_a 2 - 2 \log_a 6 + 3 \log_a 3$
- 15) Graph: $f(x) = \left(\frac{1}{2}\right)^{x-4}$
- 16) Expand: $\log_3 \sqrt[5]{\frac{x^3 y^4}{a^5}}$

Copyright © 2013 by Dr. Joseph Phillips

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without prior written permission from the author.

17) Simplify: $\frac{1}{3}\log_a 64 + \frac{3}{2}\log_a 4 - \frac{1}{4}\log_a 16$

18) Graph: $y = -3^{-x+2}$

19) Expand: $\log_4(x^5 y^2 a^3)$

20) Simplify: $3(2\log_c x - \log_c y) - 5\log_c a$

Copyright © 2013 by Dr. Joseph Phillips

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without prior written permission from the author.