

**5.RC.1 – LESSON 5.1 REVIEW**

partners take turns, one solving a problem while the other coaches

Name: \_\_\_\_\_

**PARTNER A**

**1A)** Solve:

$$8^{2x} = 16^{x+1}$$

**2A)** Solve:

$$\log_4 \left( \frac{1}{16} \right) = x$$

**3A)** Solve:

$$-9 \log_5(x - 4) = -27$$

**4A)** Condense the logarithmic expression:

$$4 \log_8 x - 2 \log_8 y$$

**5A)** Determine the domain:

$$f(x) = \log_2(4x - 1) - 5$$

1. Partner A solve the first problem.
2. Partner B watches and listens, checks, coaches (if necessary), and praises.
3. Switch roles.
4. Partner B solve the next problem.
5. Partner A watches and listens, checks, coaches (if necessary), and praises.
6. Partners repeat taking turns while solving problems.

Name: \_\_\_\_\_

**PARTNER B**

**1B)** Solve:

$$7^{2x-1} = 343^x$$

**2B)** Solve:

$$\log_{225} 15 = x$$

**3B)** Solve:

$$9 \log_2(x - 10) = 36$$

**4B)** Condense the logarithmic expression:

$$6 \log_6 x + 4 \log_6 y$$

**5B)** Determine the domain:

$$f(x) = -\log_3(5 - 2x)$$

**6A)** Solve:

$$216^{2x} = \frac{1}{36}$$

**7A)** Solve:

$$\log_2(x - 7) - \log_2 3 = 3$$

**8A)** Solve:

$$\log_9(x + 2) - \log_9 x = \log_9 10$$

**9A)** Solve:

$$\log_8(x + 19) + \log_8 x = \log_8 42$$

**10A)** Solve; round your solution to 4 decimal places.

$$5(1.031)^{3x} = 8$$

**6B)** Solve:

$$64^{2x-1} = \frac{1}{8}$$

**7B)** Solve:

$$\log_5(x + 2) + \log_5 9 = 2$$

**8B)** Solve:

$$\log_9(3x) - \log_9(x - 5) = \log_9 15$$

**9B)** Solve:

$$\log_5(x + 20) + \log_5 x = \log_5 69$$

**10B)** Solve; round your solution to 4 decimal places.

$$2(5.234)^{x+7} = 3$$