**PreAP Homework due Friday, September 2, 2016**

**Express each fraction or mixed number as a decimal.**

 **1.** $\frac{3}{5}$ **2.** $\frac{5}{8}$ **3.** $-\frac{11}{16}$

 **4.** 3$\frac{1}{5}$  **5.** $-$8$\frac{11}{18}$ **6.** $-$9$\frac{11}{30}$

**Express each decimal as a fraction or mixed number in simplest form.**

 **7.** –0.8 **8.** 0.44 **9.** 4.$\overbar{45}$

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| --- |
| **Population of Florida by Race** |
| **Race** | **Fraction of****Total Population** |
| Asian | $\frac{1}{50}$  |
| African American | $\frac{4}{25}$  |
| Hispanic | $\frac{1}{5}$  |

 **10.** Refer to the table at the right.

 **a.** Express the fraction for Asian as a decimal.

 **b.** Find the decimal equivalent for the fraction of the population that is African American.

 **c.** Write the fraction for Hispanic as a decimal.

 **11.** Use the figure at the right.



 **a.** Write the width of the jellybean as a fraction.

 **b.** Write the width of the jellybean as a decimal.

**Express each expression using exponents.**

 **12.** 3 • 3 • *m*  **13.**$\left(\frac{1}{4}\right)\left(\frac{1}{4}\right)\left(\frac{1}{4}\right)$

 **14.** 2 • *d* • 5 • *d* • *d* • 5 **15.** *p* • (–9) • *p* • (–9) • *p* • *q* • *q*

**Evaluate each expression.**

**16.** $(-2)^{3}+5^{2}$ **17.** $\left(-\frac{3}{5}\right)^{5}$ **18.** $(-2)^{5}-(-2)^{4}$

 **19.** $4^{3}÷2^{3}$ **20.** $5^{3}•2^{3}$ **21.** $1^{7}+(-3)^{4}$

**Evaluate each expression.**

 **22.** $r^{3}-s$, if *r* = 5 and *s* = 4 **23.** $m^{2}-n^{3}$, if *m* = 6 and *n* = 2

 **24.** $f-g^{4}$, if *f* = 3 and *g* = –5 **25.** $(x^{5}-y^{2})^{2}+x^{3}$, if *x* = 2 and *y* = 8

 **26.** Replace with <, >, or = to make a true statement: $2^{4}$ $4^{2}$.

 **27.** Florida has about $2^{2}$ • $3^{2}$ • $5^{3}$islands (over 10 acres). About how many islands is this?

**Express each expression using a positive exponent.**

 **28.** $8^{-5}$ **29.** $3^{-9}$ **30.** $z^{-2}$ **31.** $p^{-4}$

**Evaluate each expression.**

 **32.** $(-6)^{-5}$ **33.** $8^{-4}$ **34.** $2^{-9}$ **35.** $(-7)^{-3}$

**Express each fraction as an expression using a negative exponent.**

 **36.** $\frac{1}{2^{9}}$ **37.** $\frac{1}{64}$ **38.** $\frac{1}{e^{5}}$ **39.** $\frac{1}{7^{4}}$

**Simplify. Express using positive exponents.**

 **40.** $\frac{6^{5}}{6^{2}}$ **41.** $n^{-2}•n^{-3}$ **42.** $\frac{w^{3}}{w^{-1}}$ **43.** $\frac{k^{-4}}{k^{-6}}$

 **44.** A state highway that is $4^{4}$ miles long runs parallel to a smaller country road that is $4^{2}$ miles long. How many times longer than the country road is the state highway? Express the answer as a number with a positive exponent.