Quiz 1 Multiply and Divide Polynomials

**Simplify**

$1. (r^{3})(2r^{5})$ $2. (x^{5})^{4}$ $3. (-4t^{2}n^{3})(3tn^{4})$

**Simplify. Assume that no denominator is equal to zero.**

$4. \frac{6x^{15}}{6x^{9}}$ $5. \frac{r^{6}n^{-7}}{r^{4}n^{2}}$ $6. \frac{5m^{-4}n^{7}}{25m^{-3}n^{-2}}$ $7. \frac{(z^{2}w^{-1})^{3}}{(z^{3}w^{2})^{2}}$

**Find each product.**

$8. (2x+1)(x-4)$ $9. (4x-3)^{2}$

$10. (2x+6y)(2x-6y)$ $11.(3b+4)(2b^{2}-b+4)$

**12. Write** $y+1=4\left(x-2\right) $**in slope-intercept form.**

**13. What is the slope of** $ 4x+5y=12$?

**14.**  Graphing the polynomial function $y=-x^{2}+3$ produces an accurate drawing of the shape of an archway inside Dr. Who’s Tardis, where x is the horizontal distance in meters from the base of the arch and y is the height of the arch. At x=0, what is the height of the arch?

