## Unit 6 Lesson 15 Cumulative Practice Problems

1. Evaluate each expression if $x=3$.
	1. $2^{x}$
	2. $x^{2}$
	3. $1^{x}$
	4. $x^{1}$
	5. $\left(\frac{1}{2}\right)^{x}$
2. Evaluate each expression for the given value of each variable.
	1. $2+x^{3}$, $x$ is 3
	2. $x^{2}$, $x$ is $\frac{1}{2}$
	3. $3x^{2}+y$, $x$ is 5 $y$ is 3
	4. $10y+x^{2}$, $x$ is 6 $y$ is 4
3. Decide if the expressions have the same value. If not, determine which expression has the larger value.
	1. $2^{3}$ and $3^{2}$
	2. $1^{31}$ and $31^{1}$
	3. $4^{2}$ and $2^{4}$
	4. $\left(\frac{1}{2}\right)^{3}$ and $\left(\frac{1}{3}\right)^{2}$
4. Match each equation to its solution.
	1. $7+x^{2}=16$
	2. $5−x^{2}=1$
	3. $2\boldcdot2^{3}=2^{x}$
	4. $\frac{3^{4}}{3^{x}}=27$
	5. $x=1$
	6. $x=2$
	7. $x=3$
	8. $x=4$
5. An adult pass at the amusement park costs 1.6 times as much as a child’s pass.
	1. How many dollars does an adult pass cost if a child’s pass costs:
	* $5?
	* $10?
	* $w$ dollars?
	1. A child’s pass costs $15. How many dollars does an adult pass cost?
* (From Unit 6, Lesson 6.)
1. Jada reads 5 pages every 20 minutes. At this rate, how many pages can she read in 1 hour?
	* Use a double number line to find the answer.
* 
	+ Use a table to find the answer.

|  |  |
| --- | --- |
| * pagesread
 | * time inminutes
 |
| * 5
 | * 20
 |
|  |  |
|  |  |

* Which strategy do you think is better, and why?
* (From Unit 2, Lesson 14.)



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