

## Lesson 15 Practice Problems

1. Evaluate each expression if  $x = 3$ .

a.  $2^x$

b.  $x^2$

c.  $1^x$

d.  $x^1$

e.  $\left(\frac{1}{2}\right)^x$

2. Evaluate each expression for the given value of each variable.

a.  $2 + x^3$ ,  $x$  is 3

b.  $x^2$ ,  $x$  is  $\frac{1}{2}$

c.  $3x^2 + y$ ,  $x$  is 5  $y$  is 3

d.  $10y + x^2$ ,  $x$  is 6  $y$  is 4

3. Decide if the expressions have the same value. If not, determine which expression has the larger value.

a.  $2^3$  and  $3^2$

b.  $1^{31}$  and  $31^1$

c.  $4^2$  and  $2^4$

d.  $\left(\frac{1}{2}\right)^3$  and  $\left(\frac{1}{3}\right)^2$

4. Match each equation to its solution.

A.  $7 + x^2 = 16$

1.  $x = 1$

B.  $5 - x^2 = 1$

2.  $x = 2$

C.  $2 \cdot 2^3 = 2^x$

3.  $x = 3$

D.  $\frac{3^4}{3^x} = 27$

4.  $x = 4$

5. An adult pass at the amusement park costs 1.6 times as much as a child's pass.

a. How many dollars does an adult pass cost if a child's pass costs:

\$5?

\$10?

$w$  dollars?

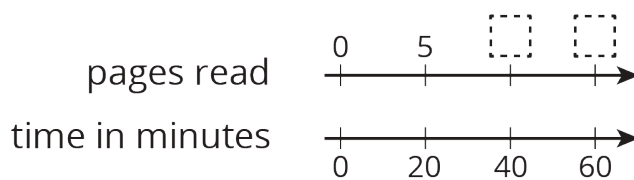
b. A child's pass costs \$15. How many dollars does an adult pass cost?

(From Unit 6, Lesson 6.)

6. 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.



pages read	time in minutes
5	20

Which strategy do you think is better, and why?

(From Unit 2, Lesson 14.)