

Chapter 1 Practice Test (Lessons 1.1 – 1.4)

1.1 *I can evaluate a variable expression.*

I can write a variable expression that models a real-life situation.

1.2 *I can evaluate expressions containing exponents.*

I can use exponents in real-life problems.

- 1a) Evaluate the expression for the given value of the variable.
Show your work.

1a) _____

$$24 \div a \text{ when } a = 6$$

- 1b) Write the expression in exponential form.

1b) _____

$$3 \cdot 3 \cdot 3 \cdot 3 \cdot k \cdot k \cdot k$$

- 2) Calculate the simple interest earned. Show your work.

2) _____

deposit \$500

4% interest

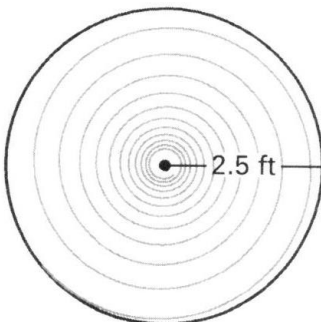
2 years

- 3) Evaluate the expression for the given value of the variable.
Show your work.

3) _____

$$100 - y^2 \text{ when } y = 5$$

- 4) A circular area rug has a radius of 2.5 feet. How much area does the rug cover?
(The area of a circle is $A = \pi \cdot r^2$ where $\pi \approx 3.14$ and r is the radius.)
Show your work.



1.3 *I can use the order of operations to evaluate algebraic expressions.*

I can use a calculator to evaluate real-life expressions.

1.4 *I can check solutions and solve equations using mental math.*

I can check solutions of inequalities in a real-life problem.

Decide whether the following is an expression, an equation, or an inequality.

1a) $5.5 = 3x - 9$

1a) _____

1b) $7x - 2$

1b) _____

1c) $3x - 2 \geq 12$

1c) _____

Check if the number is a solution of the inequality or equation.

Show your work.

2a) $4 + x^2 = 13$; 3

2a) _____

2b) $6(x + 1) \leq 8x - 7$; 2

2b) _____

3) Evaluate the expression. Show your work.

3) _____

$$\frac{4 \cdot 3 + 6}{(3 + 2) - 4}$$

4) You want to buy a newly released CD. The CD costs \$12.95 plus 6% tax. Write an expression that represents how much money in dollars you need to buy the CD. Evaluate the expression. Round to the nearest cent.