

# Unit 5 Lesson 1: Reviewing Exponents

## 1 Reviewing Exponents (Warm up)

### Student Task Statement

Complete the table.

expanded form	exponential form
$2 \cdot 2 \cdot 2$	$2^3$
$3 \cdot 3 \cdot 3 \cdot 3$	
	$5^2$
$x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x$	
	$y^3$
	$(x \cdot y)^2$

## 2 Saving Money

### Student Task Statement

Clare has a summer job. She wants to save money to spend on the family vacation at the end of summer. She is going to save \$5 per week for each of the 10 weeks she is working.

Tyler also has a summer job and he, too, would like to save money to spend on the family vacation. He is going to start by saving \$2 the first and second weeks and double the amount he saves each of the other weeks he is working (\$4 the third week, \$8 the fourth week, and so on).

Complete the table showing how much money each of them will have at the end of each week for the 10 weeks.

week	1	2	3	4	5	6	7	8	9	10	$x$
Clare	5	10	15								
Tyler	2	4	8								

### 3 Identifying Equivalent Expressions

#### Student Task Statement

Choose an expression from List A and match it with an equivalent expression from List B and from List C.

- For each match that you find, explain to your partner how you know it's a match.
- For each match that your partner finds, listen carefully to their explanation. If you disagree, discuss your thinking and work to reach an agreement.
- Switch roles so that your partner chooses a different expression from List A and matches it with an equivalent expression from List B and from List C.

List A

$$8 \cdot 8 \cdot 8$$

$$9 \cdot 27 \cdot 3$$

$$10 \cdot 100$$

$$\frac{1}{4} \cdot \frac{1}{4} \cdot \frac{1}{2}$$

$$3 + 3 + 3 + 3 + 3 + 3$$

List B

$$10^3$$

$$6 \cdot 3$$

$$\left(\frac{1}{2}\right)^5$$

$$3^2 \cdot 3^4$$

$$2^3 \cdot 4^3$$

List C

$$18$$

$$\frac{1}{32}$$

$$512$$

$$729$$

$$1,000$$