Differentiation

Meeting the Needs of All Learners

Grades 6–8

Genni Steele

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What is Differentiation?

Differentiation is instruction designed to meet differing learners' needs
AND
is a lens through which we can examine our teaching and our student's learning.

We need to develop new skills and be more adept at:

- **Identifying** the important mathematics

- **Assessing** what students know and how they learn

- **Creating, designing** and **modifying** tasks

- **Providing** the opportunity for student choice

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Focus Categories:

- Casting a Wider Net
- Scaffolding Learning
- Supporting Choice

Casting a Wider Net

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Transforming Tasks

When we expand tasks to allow access we do not want to undermine the integrity of the mathematical challenge.

Number Story:

Sabina and Mike ran each day this week. Each day Sabina ran 3.5 miles in 28 minutes. Mike ran 6 miles in 63 minutes every day.

Here are the answers: 35, 2.5, 245, 7.35

What could be the questions?

If I were…

I would be…

I would be…

But I would not be…
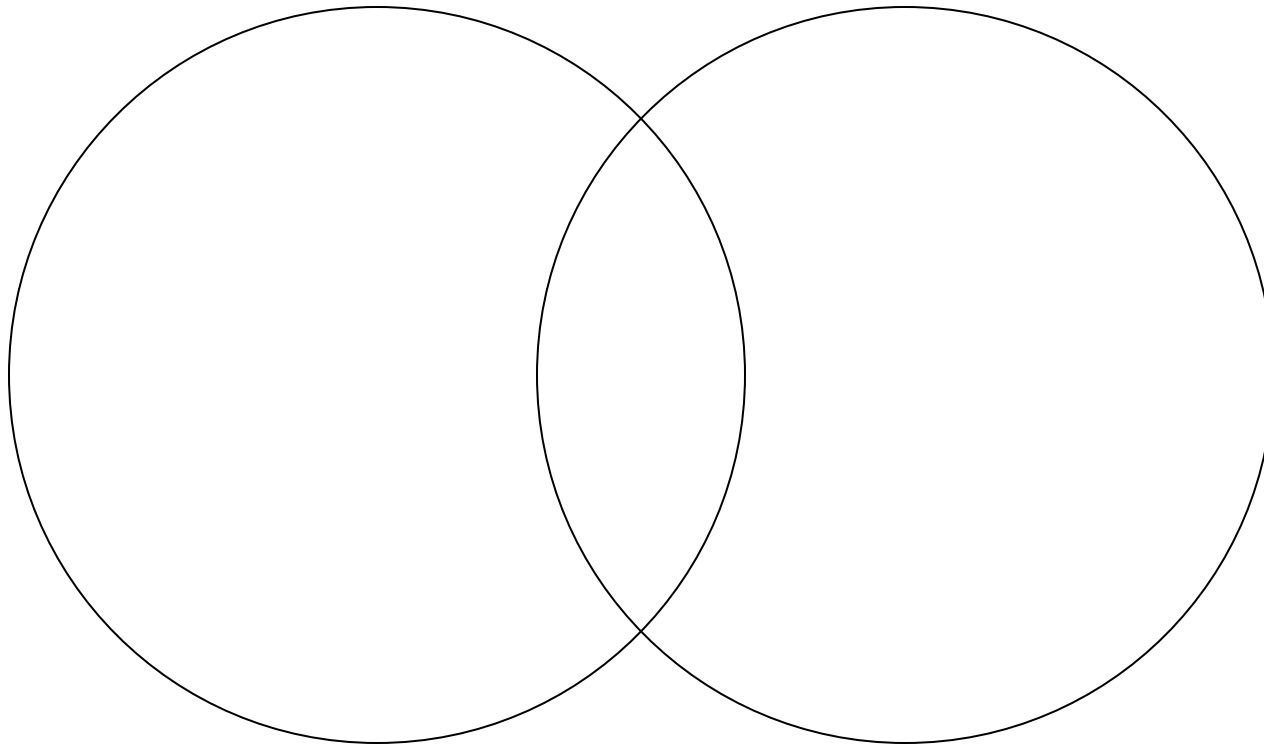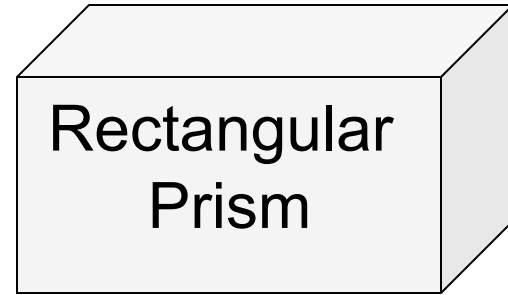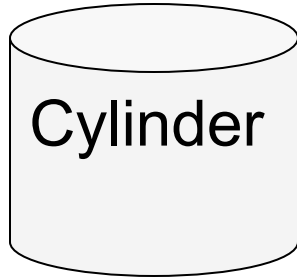
Because that would be…

Fraction Division

• Pick 5 examples whose quotient is less than 2 and explain how you know

• Pick one of the problems and write 4 different fraction division problems with the same remainder.

A family has 5 members. The mean age is 26.

How old could the family members be?

Scaffolding Learning

What can students do with support that they are not able to do on their own?

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Cylinder

Rectangular Prism

How are y=2x and y=x^2 the same? How are they different?

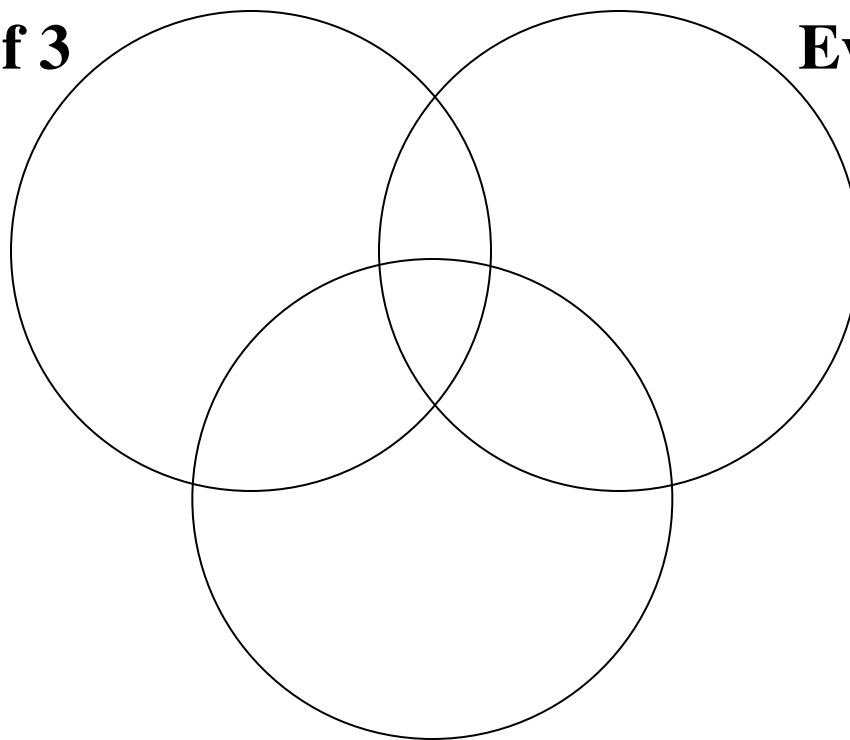| Alike	Different

Word Bank

Coefficient, rate of change, slope, linear, non-linear, y-intercept, quadratic, exponent, y-axis, x-axis

Place the numbers 1–24 in the Venn Diagram

Multiples of 3   **Even Numbers**

Factors of 18

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How are tables, graphs, and equations alike and different?

Tables and Graphs	
Alike	Different

Graphs and Equations	
Alike	Different

Tables and Equations	
Alike	Different

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Supporting Choice

- Partners
- Work space
- Tasks
- Demonstrate understanding

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Choose your numbers

There are _____cups of milk in the refrigerator. 4 ½ , 3 ⅔ , 2 ¼

It takes _____ of a cup to make frosting for one brownie recipe. ¾ , ⅔

How many batches of brownies can be frosted?

Choose your numbers

The price of basketball shoes are $____
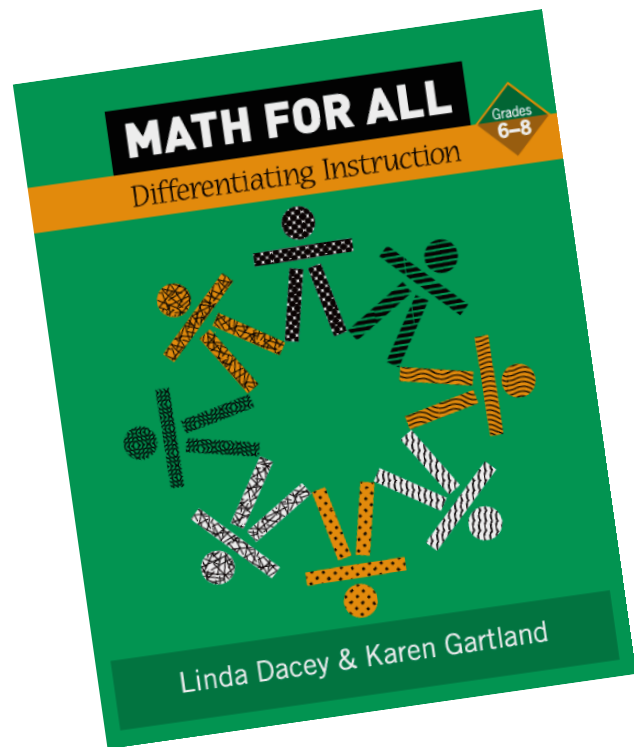
They are marked down ____%

What is the sale price?
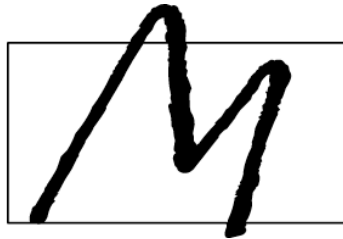
Demonstrate Understanding

A Walking Race

- Zoe walks at rate of 1 meter per second.
- Darnell's rate is 2.5 meters per second.

Design a race that Zoe will win, however, only by a little bit.

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Authors:
Linda Dacey
Karen Gartland

www.mathsolutions.com

(800) 868-9092

info@mathsolutions.com

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