1. Algebra

Grade 6
A-5

Materials: linking cubes
colored counters
pattern blocks

1. a. In a playground bicycle rack, there were a number of bicycles and tricycles. If the total number of wheels were 24 and there were at least one of each kind, how many of each type of bike were there? Model the problem with one of the above manipulatives.

b. Suppose there were 22 bikes in total. How would your answer change?

c. Suppose there were 16 bikes, how would your answer change?

d. In each of the above cases, the number of tricycles is constant. Explain why this is so.

e. Suppose you started with an odd number of bikes. Would the number of tricycles still always be the same? If so, what is the number and why?

2. Create a similar problem using another topic such as chickens and cows, birds and cats, motorcycles and cars, etc.

When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.

Please tidy up the station.

2. Algebra

Grade 6
A-7b

Materials: linking cubes
paper
ruler

1. a. Use linking cubes to represent teams that are participating in a tournament. Use a different color to represent each team. Determine how many games the champion will play if there are 8 teams competing in a single elimination tournament.

Draw to record your answer.

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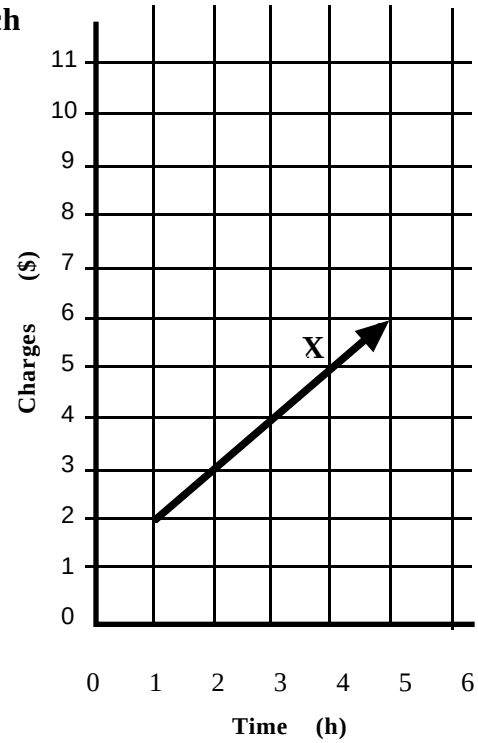
Please tidy up the station.

3. Algebra

Grade 6
A-10

Materials: paper
ruler

1. This graph shows how much Mitch charges to babysit.



a) How can you find out how much he would get paid for 2 1/2 hours?

b) Can you determine how much he would get for 1/2 hour? Explain.

c) Explain, in words, how Mitch gets paid?

d) Estimate how much he would get for 6 h. What can you do to the graph to check your answer?

e) How long did he babysit and how much did he earn at point X?

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4. Algebra

Grade 6
A-10

Materials: grid paper

1. a) Prepare a graph 8 x 8 and label the axes.

b) Plot the following pairs on the coordinate plane:
(1,1) (1,5) (6,5)

c) Find the missing pair to make the figure a rectangle.

2. a) Prepare a graph 8 x 8 and label the axes.

b) Plot the following pairs on the coordinate plane:
(1,2) (6,2) (6,7)

c) Find the missing pair to make the figure a square.

3. a) Prepare a graph 8 x 8 and label the axes.

b) Plot a few points and write a similar problem to 1 and 2.

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