NAME DATE PERIOD

Unit 4

Lesson 1: Practice Problems

1. Tyler reads $\frac{2}{15}$ of a book on Monday, $\frac{1}{3}$ of it on Tuesday, $\frac{2}{9}$ of it on Wednesday, and $\frac{3}{4}$ of the remainder on Thursday. If he still has 14 pages left to read on Friday, how many pages are there in the book?

2. Clare asks Andre to play the following number puzzle:

   - Pick a number
   - Add 2
   - Multiply by 3
   - Subtract 7
   - Add your original number

   Andre's final result is 27. Which number did he start with?

3. In a basketball game, Elena scores twice as many points as Tyler. Tyler scores four points fewer than Noah, and Noah scores three times as many points as Mai. If Mai scores 5 points, how many points did Elena score? Explain your reasoning.

4. Select **all** of the given points in the coordinate plane that lie on the graph of the linear equation $4x - y = 3$.

   A. $(-1,-7)$
   B. $(0,3)$
   C. $(\frac{3}{4}, 0)$
   D. $(1,1)$
   E. $(2,5)$
   F. $(4,-1)$

5. A store is designing the space for rows of nested shopping carts. Each row has a starting cart that is 4 feet long, followed by the nested carts (so 0 nested carts means there's just the starting cart). The store measured a row of 13 nested carts to be 23.5 feet long, and a row of 18 nested carts to be 31 feet long.

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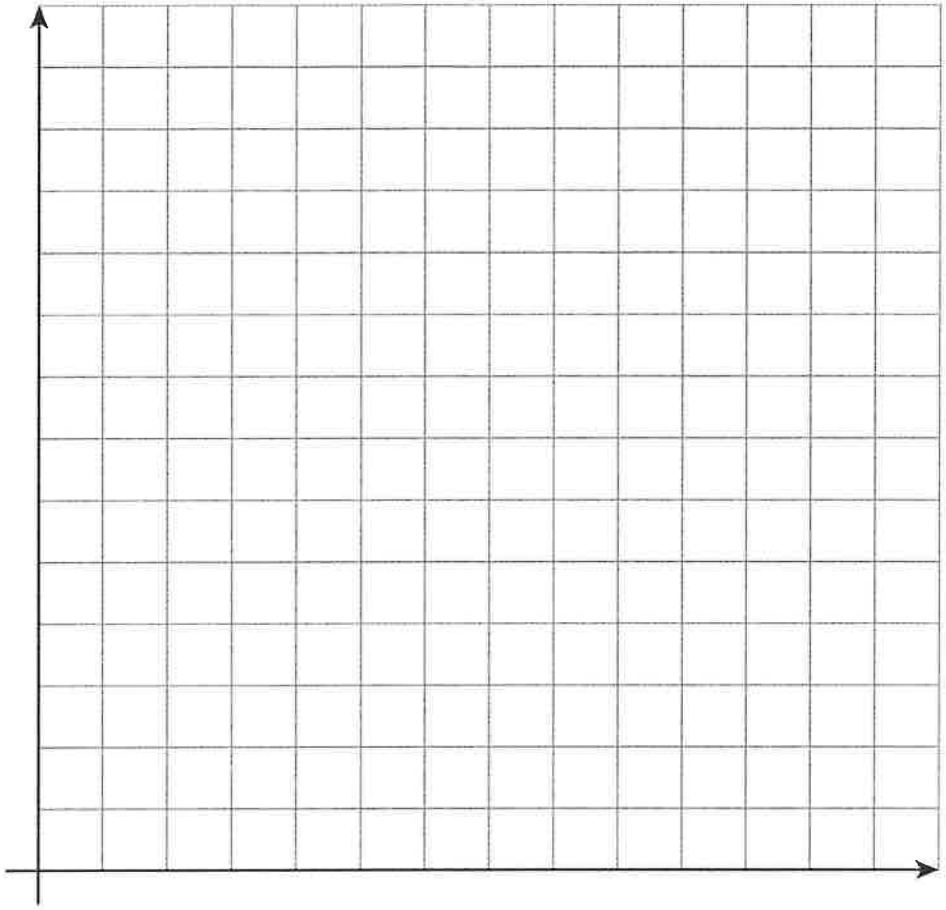
a. Create a graph of the situation.



b. How much does each nested cart add to the length of the row? Explain your reasoning.

c. If the store design allows for 43 feet for each row, how many total carts fit in a row?