



## Comparing functions

GRADE 8 MATH

Name \_\_\_\_\_

Date \_\_\_\_\_

Translate to rate and starting value first, then answer.

### WORKED EXAMPLE

An output is not a rate. Translate both functions before comparing.

1. Give the rate and starting value of  $y = -2x + 7$ .

FLUENCY

Show your thinking

Answer

2. A table has  $x: 0, 1, 2 \rightarrow y: 9, 12, 15$ . Find its rate and starting value.

FLUENCY

Show your thinking

Answer

3. Which has the greater rate:  $y = 4x + 1$ , or the table above?

APPLICATION

Show your thinking

Answer

4. Which starts higher:  $y = 4x + 1$ , or the table above?

FLUENCY

Show your thinking

Answer

5. "A phone starts at 80% and loses 6% an hour." Write it as an equation.

APPLICATION

Show your thinking

Answer

6. Function M is  $y = x + 20$ . Function N is  $y = 5x$ . Which is bigger at  $x = 2$ ? At  $x = 10$ ?

REASONING

Show your thinking

Answer

7. Explain why “which function is bigger?” is not a complete question.

REASONING

Show your thinking

Answer

8. A graph through  $(0,4)$  and  $(3,10)$ . Does it rise faster than  $y = 3x - 1$ ?

APPLICATION

Show your thinking

Answer