

2016 Mathematics Standards of Learning  
Algebra Readiness Formative Assessment

7.10a

1. On Monday, Richard worked for 4 hours and earned \$36. On Tuesday, Richard worked for 6 hours and earned \$54. On Wednesday, Richard worked for 5 hours and earned \$45.

Are his earnings proportional?

What is the rate of change for his earnings?

Represent his earnings in a  $y = mx$  function, where hours are represented by  $x$  and earnings are represented by  $y$ , and  $m$  represents the rate of change.

If Richard worked for 7 hours on Thursday, how much money would he earn?

How many hours did Richard work on Friday, when he earned \$81

2. Given:

$x$	$y$
2	2.2
4	4.4
6	6.6

Which rate of change ( $m$ ), would represent this proportional relationship?

- A.  $m = 0.2$
- B.  $m = 1.1$
- C.  $m = 2.2$
- D.  $m = 2$

3. Given:

$x$	$y$
3	6.3
6	12.6
9	18.9

Which equation would represent this proportional relationship?

- A.  $y = 0.2x$
  - B.  $y = 1.1x$
  - C.  $y = 2.1x$
  - D.  $y = 2x$
4. Which of the following represents a proportional relationship between the  $x$ - and  $y$ -values?

A.

$x$	$y$
1	5
2	6
3	7

B.

$x$	$y$
1	1
2	5
3	9

C.

$x$	$y$
2	3
4	5
6	7

D.

$x$	$y$
2	3
4	6
6	9

