

# IA Math Placement Assessment

Student Name: SAMPLE

District: SAMPLE

ID # SAMPLE

*There are no calculators allowed on this assessment*

SECTION A: *Familiar questions for all students*

1. Solve  $4 + 6x = -14$

A.  $x = -2$

B.  $x = -3$

C.  $x = 3$

D.  $x = -\frac{5}{3}$

E. none of the given responses

2. Solve  $2 + 3(5 - 2) - 3 \times 2^2$

A.  $x = -1$

B.  $x = -25$

C.  $x = -21$

D.  $x = 3$

E. none of the given responses

SECTION B: *Somewhat familiar content for Math 8 / Mostly familiar for Algebra I +*

3. Solve  $4\left(\frac{1}{2}x + 6\right) = -2(x - 24)$

A.  $x = 6$

B.  $x = -60$

C.  $x = 2$

D. no solution

E. none of the given responses

4. Solve  $\frac{13}{3} - \frac{9}{4} = x$

A.  $x = -4$

B.  $x = \frac{1}{3}$

C.  $x = \frac{25}{12}$

D.  $x = \frac{79}{12}$

E. none of the given responses

5. Determine the value of  $r$  so that the line through  $(5,2)$  and  $(7, r)$  has a slope of  $m = -\frac{1}{2}$

A. 2

B. 1

C. 6

D. 3

E. none of the given responses (lines p.2)

# IA Math Placement Assessment

Student Name: SAMPLE

District: SAMPLE

ID # SAMPLE

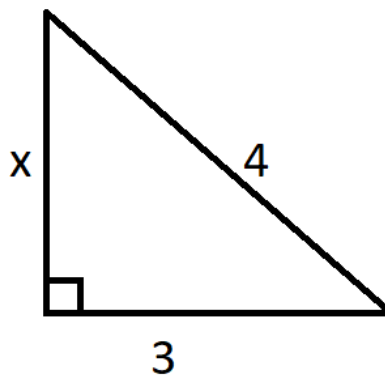
6. Solve the inequality  $2(x + \frac{5}{2}) > 3(x - 6)$
- A.  $x < 11$                       B.  $x < \frac{17}{2}$                       C.  $x < 23$
- D.  $x > 23$                       E. none of the given responses

7. Find  $(2x + 5)(3x^2 - 10)$
- A.  $6x^3 - 50$                       B.  $6x^3 + 15x^2 - 20x - 50$
- C.  $6x^3 + 15x^2 + 20x - 50$                       D.  $6x^2 + -5x - 50$
- E. none of the given responses

8. What is the mode of the set of numbers:  $\{\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, \frac{3}{6}, \frac{4}{5}\}$ ?
- A. 0.25                      B. 0.8                      C. 0.75
- D. 0.5                      E. none of the given responses

9. The right triangle below has sides 3 and 4. What is the length of the missing side x?

- A. 5
- B.  $\sqrt{5}$
- C. 7
- D.  $\sqrt{7}$
- E. none of the given responses



## SECTION C:

*Unfamiliar content for Math 8 / Somewhat familiar for Algebra I / Mostly familiar for Geometry +*

10. Find the value of  $a$  if the distance between  $(4,3)$  and  $(-1,a)$  is 13 units.
- A.  $a = -15$  or  $a = 9$                       B.  $a = 15$  only                      C.  $a = 15$  or  $a = -9$
- D.  $a = -15$  only                      E. none of the given responses