

Independent Practice

p.104-105

1. If $|r + 7| = 6$ and $|2r - 2| = 4$, then what is the value of r ?

(A) -13

(B) -3

(C) -1

(D) 3

(E) 13

$$|-1+7| = |6| = 6 \checkmark$$

$$|2(-1)-2| = |-2-2| = |-4| = 4 \checkmark$$

2. If $\frac{5x}{6} = 3\frac{1}{3}$, what is the value of x ?

(A) 2

(B) 4

(C) 6

(D) 8

(E) 10

$$\frac{5 \cdot 4}{6} = \frac{20}{6} = 3.\overline{3}$$

$$3 + \frac{1}{3} = 3.\overline{3}$$

3. If $n < 3 < 1/n$, which of the following values could n represent?

(A) -1/5

(B) 1/5

(C) 1/3

(D) 1

(E) 5

$$\frac{1}{5} < 3 < \frac{1}{5}$$

$$\frac{1}{5} < 3 < 5 \checkmark$$

4. The positive difference between two numbers that add up to 3 is p. In terms of p, what is the value of the greater of the two numbers?

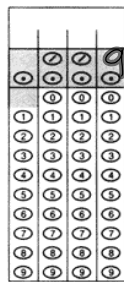
~~(A) $(p-3)/2$~~ $1-3/2 = -2/2 = -1$
~~(B) $p/2$~~ $1/2 =$
 \checkmark (C) $(p+3)/2$ $1+3/2 = 4/2 = 2$
~~(D) $p/2+3$~~
~~(E) $(2p-3)/2$~~ $1/2+3 =$ $p = 2-1 = 1$
 $2 \cdot 1 - 3/2 = -1/2$

5. If x and y are positive numbers and $(7x)/y = 3$, then which of the following is not true?

$y = 7$
 $\frac{7x}{7} = 3 \quad x = 3$
 $\frac{3+7}{7} = \frac{10}{7}$

~~(A) $(x+y)/y = 7/10$~~
 (B) $y/x = 7/3$
 (C) $4y/x + 1 = 31/3$
 (D) $7x - 3y = 0$
 (E) $(5x + 3y)/x = 12$

6. If $x > 5$ and $14/\sqrt{x-5} = 7$, what is the value of x?



$\left(\frac{14}{\sqrt{x-5}} = 7 \right) \sqrt{x-5}$
 $\frac{14}{7} = 7 \sqrt{x-5}$
 $(2)^2 = (\sqrt{x-5})^2$
 $4 = x - 5$
 $+5$
 $x = 9$

KAP Wrap

p.106

Raj solved the problem below. He incorrectly answered (D).

1. If $\sqrt{x-6} = 3$, which of the following could be the value of x ?

(A) -3

(B) 3

(C) 9

(D) 12

(E) 15

Raj's error

$$3^2 = 9 \neq 6$$

$$\sqrt{x-6} = 3$$

$$x-6 = 9$$

$$+6$$

$$x = 15$$