

Mathematician: Key

Wednesday

Thursday

Friday

Which of the following is a value of  $x$  for which the expression  $\frac{-3}{x^2+3x-10}$  is undefined?

- a) -3
  - b) -2
  - c) 0
  - d) 2**
- impossible denominator is zero*

Show work:

$$(2)^2 + 3(2) - 10 = 4 + 6 - 10 = 0$$

Correct answer = d

Choose one of the incorrect answers and tell about the mistake that has been made to get that incorrect answer:

$h(x) = \frac{1}{(x-5)^2 + 4(x-5) - 4}$   
For what value of  $x$  is the function  $h$  above undefined?  
Show work:

**X = 3**

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

$g(x) = ax^2 + 24$   
For the function  $g$  defined above,  $a$  is a constant and  $g(4) = 8$ . What is the value of  $g(-4)$ ?  
a) 8  
b) 0  
c) -1  
d) -8

*is also 8 because when we square  $(4)^2 = 16$  same  $(-4)^2 = 16$*

A function  $f$  satisfies  $f(2) = 3$  and  $f(3) = 5$ . A function  $g$  satisfies  $g(3) = 2$  and  $g(5) = 6$ . What is the value of  $f(g(3))$ ?  
a) 2  
b) 3  
c) 5  
d) 6

*$f(2) = 3$*

Which of these 2 problems was easier for you? Why?