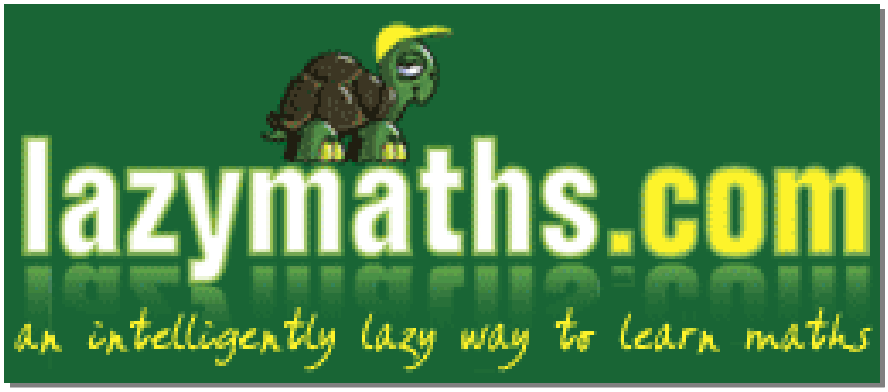
Free Example

of

Don't Solve

from



Question

If $g(x) = \frac{3a-5}{2a+1}$, then what is the value of $\frac{5g(1)-3g(2)+10g(-1)}{8}$?

a. 1141

b. $\frac{1141}{15}$

c. $\frac{1141}{120}$

d. $\frac{1141}{60}$

e. $\frac{1141}{20}$

See Next page for **Usual Method**

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The Usual Method

First get the values of:

$$g(1) = \frac{3(1)-5}{2(1)+1} = \frac{-2}{3}$$

$$g(2) = \frac{3(2)-5}{2(2)+1} = \frac{1}{5}$$

$$g(-1) = \frac{3(-1)-5}{2(-1)+1} = \frac{-8}{-1} = 8$$

Now, substitute these values in the given equation, we get:

$$\frac{5\left(\frac{-2}{3}\right)-3\left(\frac{1}{5}\right)+10(8)}{8}$$

$$= \frac{\frac{-10}{3}-\frac{3}{5}+80}{8}$$

$$= \frac{\frac{-50-9+1200}{15}}{8}$$

$$= \frac{1141}{15} \times \frac{1}{8} = \frac{1141}{120}$$

(Ans: c)

Estimated Time to arrive at the answer = 75 seconds.

See Next page for **Smart Technique**

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Using Technique

Observe from the equation $\frac{5g(1)-3g(2)+10g(-1)}{8}$ has '8' in its denominator. This 8 cannot be reduced in further operations as 5, 3 and 10 are relatively prime to 8 and hence have an HCF of 1. Should the HCF of these numbers be 2 or any multiple of 2, then the denominator '8' will get to 4, 2 or 1 accordingly. But in this particular case, it is not so. Hence, the answer should have 8 or a multiple of 8 in its denominator. The only option satisfying this criterion is options 'c'.

(Ans: c)

Estimated Time to arrive at the answer = 10 seconds.

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