EST January 2024

Eng. Mohamed Minshawy

1- $\dfrac{2a}{3b} = \dfrac{1}{5}$

In the equation shown above, find the value of $\dfrac{a}{6b}$

2- How many 3 digits even numbers that have the first digit even?

A) 70
B) 120
C) 150
D) 200

3- $\dfrac{4^{5x}}{2^{y-1}} = 32$

what is the value of -30x+3y for the equation mentioned earlier?

A) -14   B) -12
B) 12   D) 10

4- **No calculator question**
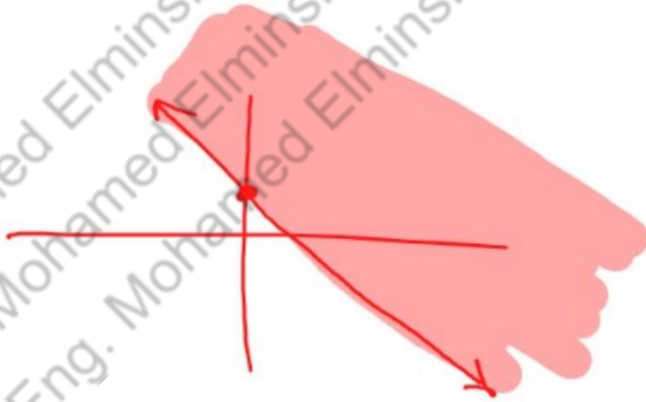
According to the graph of the inequality shown above, which of the following choices can represent it?

A) $y + x \geq 1$
B) $y + x > 1$
C) $y + x \leq 1$
D) $y + x < 1$

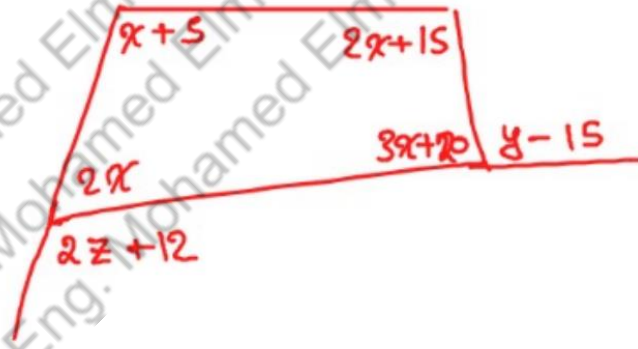---

5- $4^{2x} = 256$

Find the value of x that satisfies the equation shown above?

6-

In a high school the total number of students is 4550, The ratio between the boys and the girls is 5:2 and 10% of the girls wear glasses. How many girls Don't wear glasses?

7- **No calculator question**

x+5   2x+15

2x   3x+20   y-15

2z+12

According to the figure shown above, What is the value of the following:

A) x

B) y + Z

8- **With calculator question**

For the following data set {4,7,6,9,9,10,12,14} the quotient of the sum of values and the inter quatral range is $\frac{146}{g}$, What is the value of g ?