

**Jackson's GRE Classes on Udemy**

**ALGEBRA BASICS - LINEAR EQUATIONS**

Q1. Find a number such that half of the number is 5 more than one third of the number

Q2.

Q. Solve

$$\begin{aligned} \text{a)} \quad 7y + \frac{23}{3} &= 12 \\ \text{b)} \quad -4 &= 2(x - 7) \end{aligned}$$

Q3.

$$\frac{x-9}{3} + \frac{2x}{5} = 7 - \frac{x}{2}$$

Q4. An apartment has flats with 2 bedrooms and 3 bedrooms. Total number of flats is 100. Total number of bedrooms is 260. Find the number of 2 bedroom flats.

Q5. Solve

$$3x + 2y + 4z = 19$$

$$4x + y + 7z = 27$$

$$x + 3y + z = 10$$

Q6. There are cows and chicken in a farm. Bob counted 39 heads and 126 legs. How many cows are there in this farm? (a)15 (b)20 (c)24 (d)30 (e) 40

Q7. Anita is 5 times as old as her daughter. 2 years from now she will be 4 times as old as her daughter. Find the present age of the daughter. (a)30 years (b)6 years (c)10 years (d)15 years (e) 20 years

Q8. Felix is planning a trip. He plans to hire a Tour guide. The Tour guide charges a fixed cost per day which he has to pay irrespective of the number of miles they travel. On top of that he has to pay a variable cost per mile travelled. He found that if he plans a 3 day trip covering 200 miles it will cost him \$720 and if he plans a 4 day trip covering 300 miles it will cost him \$ 1060. Find the fixed cost and variable cost (a)\$40,\$3 (b)\$20,\$3 (c)\$100,\$3 (d)\$80, \$2 (e) \$50, \$3

**ANSWERS**

1. 30

2.a)  $13/21$

2.b) 5

3.  $300/37$

4. 40

5.  $x=1$ ,  $y=2$ ,  $z=3$

6.(c) 24

7. (b) 6

8. \$40, \$3