Beginning Algebra	Name:
Study Guide 4	Class:
Due Date:	Score:

No Work $\Leftrightarrow$ No Points

Use Pencil Only $\Leftrightarrow$ Be Neat & Organized

1. **(3 points) Solve:** $\dfrac{1}{2}x + \dfrac{3}{4} = \dfrac{1}{4}x - \dfrac{3}{5}$

1. _____

2. **(3 points) Solve:** $\dfrac{1}{2}(x - 2) = \dfrac{-1}{3}(x + 3)$

2. _____

3. **(3 points) Solve:** $1.35x - 4.5 = 0.1x + 7.75$

3. _____

4. **(3 points) Solve:** $\dfrac{3}{4}x = -6$

4. _____

5. Evaluate:

   (a) **(2 points)** $-4x$ for $x = \dfrac{1}{2}$

   (a) _____

   (b) **(2 points)** $\dfrac{2}{5}x$ for $x = \dfrac{-5}{2}$

   (b) _____

6. Solve:

   (a) **(2 points)** $x - \dfrac{2}{3} = \dfrac{1}{3}$

   (a) _____

   (b) **(2 points)** $\dfrac{2}{5}x + \dfrac{2}{3} = \dfrac{-4}{15}$

   (b) _____

   (c) **(3 points)** $\dfrac{3}{4}(x - 2) + \dfrac{1}{3} = \dfrac{2}{3}(x + 1) - 1$

   (c) _____

7. (2 points) Solve: $\dfrac{2}{3}(x + 3) - \dfrac{5}{6} = \dfrac{1}{2}(x - 2)$

   7. _____

8. **(3 points)** Thirteen less than one–quarter of some number is equal to one more than half the number. Find the number.

8. _____

9. **(3 points)** Twice the sum of some number and 3 reduced by 10, the result is 10. Find the number.

9. _____

10. **(3 points)** In triangle ABC, angles A and B are equal, and angle C is $25°$ less than three times angle A. Find the measure of all three angles.

10. _____

11. **(2 points)** Solve: $\dfrac{3x-5}{5} = \dfrac{x+3}{3}$

11. _____

12. **(2 points)** Solve: $\dfrac{2.5}{100} = \dfrac{x}{400}$

12. _____

13. (2 points) What is 18% of 150?

13. _____

14. (3 points) In a survey of 800 people, 50 were left–handed. At this rate, how many left–handed people are there in a gathering of $18,000$ people?

14. _____

15. (2 points) Solve $-5x + 3y = -15$ for the y variable.

15. _____

16. (2 points) Solve $2x - 5y = -10$ for the y variable.

16. _____

17. (3 points) The length of a rectangular room is 3 feet longer than twice its width. Find the dimensions of the room if its perimeter is 36 feet.

17. _____