College Algebra	Name:
Study Guide 17	Class:
Due Date:	Score:

No Work $\Leftrightarrow$ No Points

Use Pencil Only $\Leftrightarrow$ Be Neat & Organized

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1. Consider $f(x) = \dfrac{x+4}{x+1}$,

   (a) **(2 points)** Find all its intercepts.

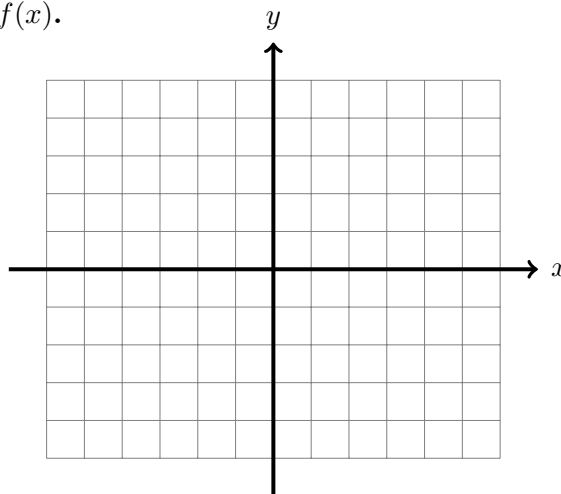   (a) —————

   (b) **(2 points)** Find all its asymptotes .

                                              (b) —————

   (c) **(3 points)** Graph $f(x)$.

   (d) **(2 points)** Find intervals where $f(x) \leq 0$.

                                              (d) —————

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2. (2 points) Evaluate: $8!$

2. _____

3. (2 points) Evaluate: $9! - 6!$

3. _____

4. (2 points) Evaluate: $7! + 3!$

4. _____

5. (2 points) Evaluate: $3! \cdot 5!$

5. _____

6. (2 points) Evaluate: $\dfrac{7!}{3!}$

6. _____

7. (2 points) Evaluate: $\dfrac{9!}{4! \cdot 5!}$

7. _____

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8. (**2 points**) **Evaluate:** $_9C_4$

8. _____

9. (**2 points**) **Evaluate:** $\dfrac{12!}{3! \cdot 5! \cdot 4!}$

9. _____

10. (**2 points**) **Evaluate:** $_{10}C_3$

10. _____

11. (**3 points**) **Expand:** $(x + y)^4$**, make sure to box your final answer.**

12. (**4 points**) **Expand:** $(x - y)^5$**, make sure to box your final answer.**

13. (4 points) Find the first four terms of $(x^2 - 2y^3)^9$**, make sure to box your final answer.**

14. (4 points) Find the 5th term of $(x - y^2)^{10}$

14. _____

15. (4 points) Find the 6th term of $(x^3 - y^8)^{12}$

15. _____

16. (4 points) Find the middle term of $(4x^2 - 5y^6)^{10}$

16. _____