

MATH 1111 Practice Final Exam #4 Key

1. $\frac{6y^4}{x^3}$

2. $\frac{2x + 3}{(x + 1)(x + 2)(x - 1)}$

3. $3x^2y$.

4. $\frac{5\sqrt{3} - 5}{2}$ or $\frac{5(\sqrt{3} - 1)}{2}$

5. 65

6. $\frac{-5 \pm i\sqrt{3}}{2}$

7. $\{-\frac{3}{2}, 0, 1\}$

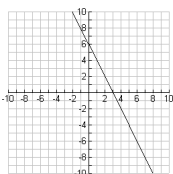
8. $\{-\frac{22}{9}, 2\}$

9. $(-\infty, -21]$

10. $(-7, 2)$

11. $8 - 6i$

12. 60 hours



13.

14. $-\frac{2}{3}$

15. 182 miles

16. $y = 2x - 17$ or $2x - y - 17 = 0$

17. $E = 5$

18. $(-1, 0), (9, 0)$

19. $\{x|x \neq 9\}$

20. 1

21. $(f \circ g)(x) = (x + 4)^2 - 2$ or $x^2 + 8x + 14$

22. $(5, -7)$

23. 31

24. $f^{-1}(x) = \frac{4}{x} + 1$ or $\frac{x + 4}{x}$

25. $x - 2 = \ln(5)$

26. $\{\frac{2}{5}\}$ or $\{0.4\}$

27. $\{5\}$

28. 3.6 years

29. $x = 11, y = -2$ or $\{(11, -2)\}$

30. -2