

Algebra II Unit 12 Review

- $f(x) = 2x^3 + 3x^2 - 4$ $g(x) = x + 5$
a) find $f(-1)$ b) $f(g(2))$ c) $g(x^2 - 6)$
- Simplify each: a) $\frac{n!}{(n+1)!}$ b) $\frac{(n+1)!}{(n-1)!}$
- Solve each for x : a) $\frac{3x}{5} + \frac{x^2}{3} = \frac{x+1}{2}$ b) $5^{x+1} = 8$ c) $x^2 + 10x = -28$ d) $\log_3 x = 5$
- If there's a 60% chance of winning game 1 and a 30% chance of winning game 2, find the probability of:
a) winning both games b) winning only one game
- How many ways can you arrange the letters in: a) HELP b) FUNNY
- If there are 12 items, how many combinations of 3 can you make?
- There are 6 people. How many ways can you line them up if Joe is on one end & Sally on the other?
- A certain license plate is made up of 2 numbers followed by 3 letters. What is the probability it says "1 2 TWO"?
- A spinner is spun that is red, blue & green, then a die (six-sided) is rolled. Find the probability of getting:
a) red and 4 b) blue and 8
- A card is drawn from a deck of 52. Find the probability of getting:
a) Ace b) heart c) Ace and heart d) Ace or heart
- Joe has a 90% chance of getting the first question on a test right and only 50% chance on the second question. Find the probability of:
a) getting both correct b) getting only 1 correct

ANSWERS

- a) -3 b) 829 c) $x = \pm 1$ 10. a) $1/13$ b) $1/4$ c) $1/52$ d) $4/13$
- a) $\frac{1}{n+1}$ b) $(n+1)(n)$ 11. a) 45% b) 50%
- a) -1.38 & 1.08 b) $x = .292$ c) $-5 \pm i\sqrt{3}$ d) 243
- a) 18% b) 54%
- a) 24 b) 60
- 220
- 24
- 1 out of 1,757,600
- a) $1/18$ b) 0