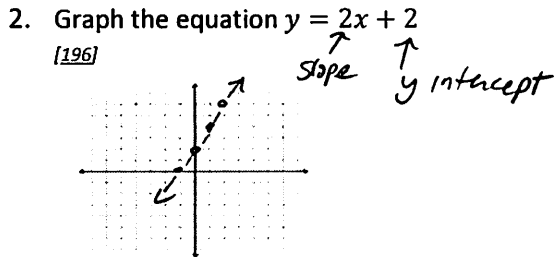


No Calculator

Find videos on each [skill] at www.AlgebraNinja.com Name: KEY Hour: _____

Basic 20 ACT Prep Version 2

1. Solve $\frac{4x}{4} = \frac{7}{4}$ [26]
 $x = \frac{7}{4}$



3. Write and solve an equation for the sentence: Three more than two times a number is equivalent to ten. [219]

$$\begin{array}{r} 2n + 3 = 10 \\ -3 \quad -3 \\ \hline 2n = 7 \\ n = \frac{7}{2} \end{array}$$

4. Find the slope given points (-4,3) & (6,1) [191]

$$m = \frac{1-3}{6-(-4)} = \frac{-2}{10} = \frac{-2}{2 \cdot 5} = \frac{-1}{5}$$

5. Simplify $\frac{7}{3} \cdot \frac{6}{5}$ [42] $\frac{7}{\cancel{3}} \cdot \frac{2 \cdot \cancel{3}}{5} = \frac{14}{5}$

6. Distribute $-5(x-2)$ [8] $-5x + 10$

7. Simplify (PEMDAS) $2(2+1)^2 + 4$ [212]

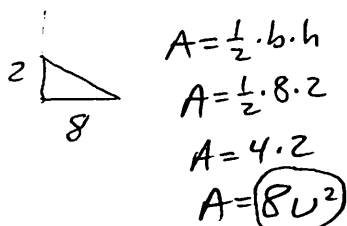
$$\begin{array}{l} 2(3)^2 + 4 \\ 2 \cdot 9 + 4 \\ 18 + 4 \\ 22 \end{array}$$

8. Simplify $-8 + 2$ [5] -6

9. Solve $\frac{3}{7}a = 4$ [28]

$$\frac{3a}{3} = \frac{28}{3} \quad a = \frac{28}{3}$$

10. Find the area of a triangle that has a base = 8 and height = 2 [147]



11. If $f(x) = 7x - 2$, evaluate at $x = -1$ [110]

$$7(-1) - 2 \\ -7 - 2 = -9$$

12. Simplify $4ym^3ym^3m^2y$ [206]

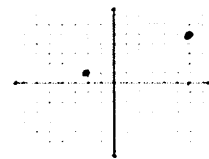
$$4 \cdot 3 \cdot 2 \cdot y \cdot y \cdot y \cdot m \cdot m \cdot m \cdot m^3 = 24y^3m^6$$

13. Use Prime factorization to factor 30 [252]

$$\begin{array}{c} 15 \cdot 2 \\ \uparrow \\ 3 \cdot 5 \end{array} \quad (2 \cdot 3 \cdot 5)$$

14. Simplify $\frac{\frac{3}{2}}{\frac{5}{7}}$ [50] $\frac{3}{2} \cdot \frac{7}{5} = \frac{21}{10}$

15. Graph the points (-2,1) & (6,5) [251]



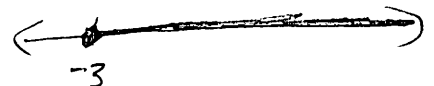
16. Find 3 points on $f(x) = 4x - 3$ [185]

X	Y
0	-3
1	1
2	5
-1	-7

17. Solve $x + 3x + 4 = 8$ [253]

$$4x + 4 = 8 \\ 4x = 4 \quad x = 1$$

18. Graph on a number line: "x is greater than or equal to -3." [224]



19. Simplify $\frac{3}{4} + \frac{1}{3}$ [39]

$$\frac{3 \cdot 3}{4 \cdot 3} + \frac{1 \cdot 4}{3 \cdot 4} = \frac{9}{12} + \frac{4}{12} = \frac{13}{12}$$

20. simplify $-9 - |-1|$ [21]

$$-9 - 1 = -10$$