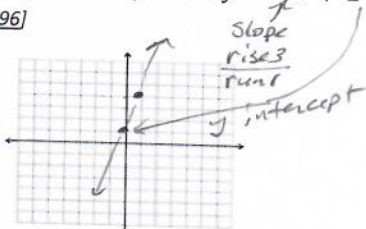


Basic 20 ACT Prep Version 1

1. Solve $3x = 8$ [76]

$x = \frac{8}{3}$ or $2\frac{2}{3}$

2. Graph the equation $y = 3x + 1$ [196]



3. Write and solve an equation for the sentence: Two more than three times a number is equivalent to 14. [219]

$3n + 2 = 14$
 $3n = 12$
 $n = 4$

4. Find the slope given points (-3, 2) & (7, 8) [191]

$\frac{8-2}{7-(-3)} = \frac{6}{10} = \frac{3}{5}$

5. Simplify $\frac{8}{3} \cdot \frac{5}{2}$ [42] $\frac{40}{6} = \frac{20}{3}$

6. Distribute $3(x - 5)$ [8] $3x - 15$

7. Simplify (PEMDAS) $8(0 + 1)^2 + 5$ [212]

$8(1)^2 + 5$
 $8(1) + 5$
 $8 + 5 = 13$

8. Simplify $-3 + 5$ [5]
 Combine $- + + + = 2$

9. Solve $\frac{1}{3}a = 10$ [78]

$3 \cdot \frac{1}{3}a = 10 \cdot 3$
 $a = 30$

10. Find the area of a triangle that has a base = 4 and height = 3 [147]

$A = \frac{1}{2}b \cdot h$
 $A = \frac{1}{2}(4)(3)$
 $A = 2(3)$
 $A = 6 \text{ units}^2$

11. If $f(x) = 9x - 1$, evaluate at $x = -2$ [110]

$f(-2) = 9(-2) - 1$
 $= -18 - 1$
 $= -19$

12. Simplify $3y^2mym^3m^5y$ [206]

re arrange since all are multiply
 $3 \cdot 2 \cdot 5 \cdot y \cdot y \cdot y \cdot m \cdot m \cdot m \cdot m = 30y^3m^6$

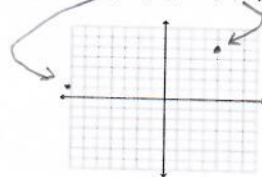
13. Use Prime factorization to factor 40 [252]

40
 $2(20)$
 $2(10)$
 $2(5)$
 $2 \cdot 2 \cdot 2 \cdot 5$
 or
 $2^3 \cdot 5$

14. Simplify $\frac{3}{4} \cdot \frac{7}{4}$ [50]

$\frac{3}{2} \cdot \frac{7}{4} = \frac{21}{8}$ or $2\frac{5}{8}$

15. Graph the points (-7, 1) & (4, 5) [251]



16. Find 3 points on $f(x) = 3x - 2$ [185] pick any

$y = f(x) = 3(x) - 2$

X	Y
0	-2
1	1
2	4

-1 -5 etc

17. Solve $x + 2x + 5 = 8$ [253]

$3x + 5 = 8$
 $-5 -5$
 $3x = 3$
 $x = 1$

18. Graph on a number line: "x is greater than or equal to 5." [224]



19. Simplify $\frac{3}{7} + \frac{1}{3}$ [39]

$\frac{3 \cdot 3}{3 \cdot 7} + \frac{1 \cdot 7}{3 \cdot 7} = \frac{9}{21} + \frac{7}{21} = \frac{16}{21}$

20. simplify $-6 - |-3|$ [21]

$-6 - (3)$
 -9