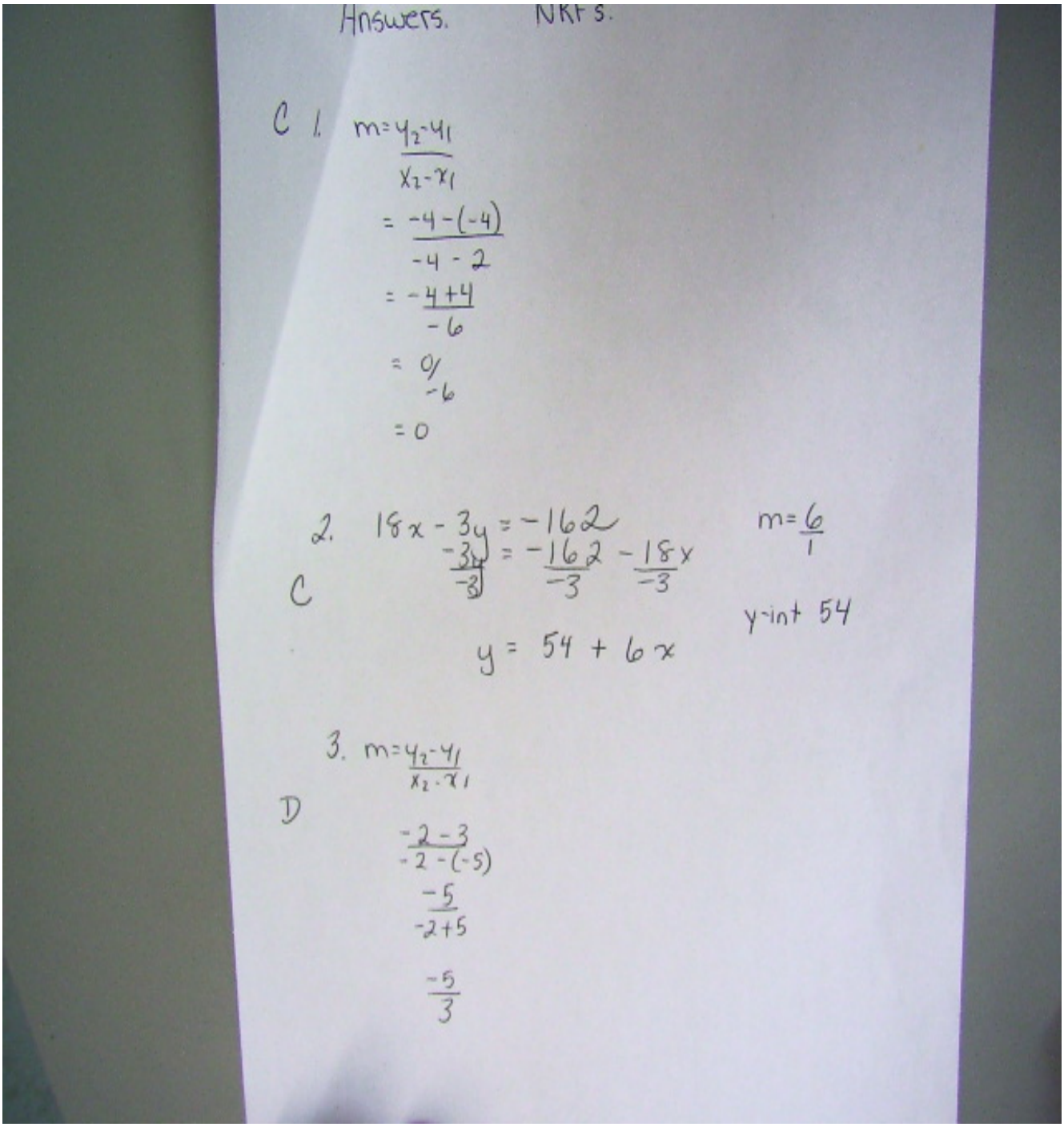


Answers. NRFS.

C 1. $m = \frac{y_2 - y_1}{x_2 - x_1}$

$= \frac{-4-(-4)}{-4-2}$

$= \frac{-4+4}{-6}$

$= \frac{0}{-6}$

$= 0$

2. $18x - 3y = -162$

$\frac{-3y}{-3} = \frac{-162}{-3} - \frac{18x}{-3}$

C

$y = 54 + 6x$

$m = \frac{6}{1}$

y-int 54

3. $m = \frac{y_2 - y_1}{x_2 - x_1}$

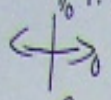
D

$\frac{-2-3}{-2-(-5)}$

$\frac{-5}{-2+5}$

$\frac{-5}{3}$

4. $\frac{1}{0}$ undefined



A

5. $4(x-3)+2y=8x+2$

$4x-12+2y=8x+2$

$2y=8x-4x+2+12$

$2y=4x+14$

$y=2x+7$

A

6. $-8x-6y=3$

$\frac{-6y}{-6}=\frac{3}{-6}+\frac{8x}{-6}$

$y=-\frac{1}{2}-\frac{4}{3}x$

D

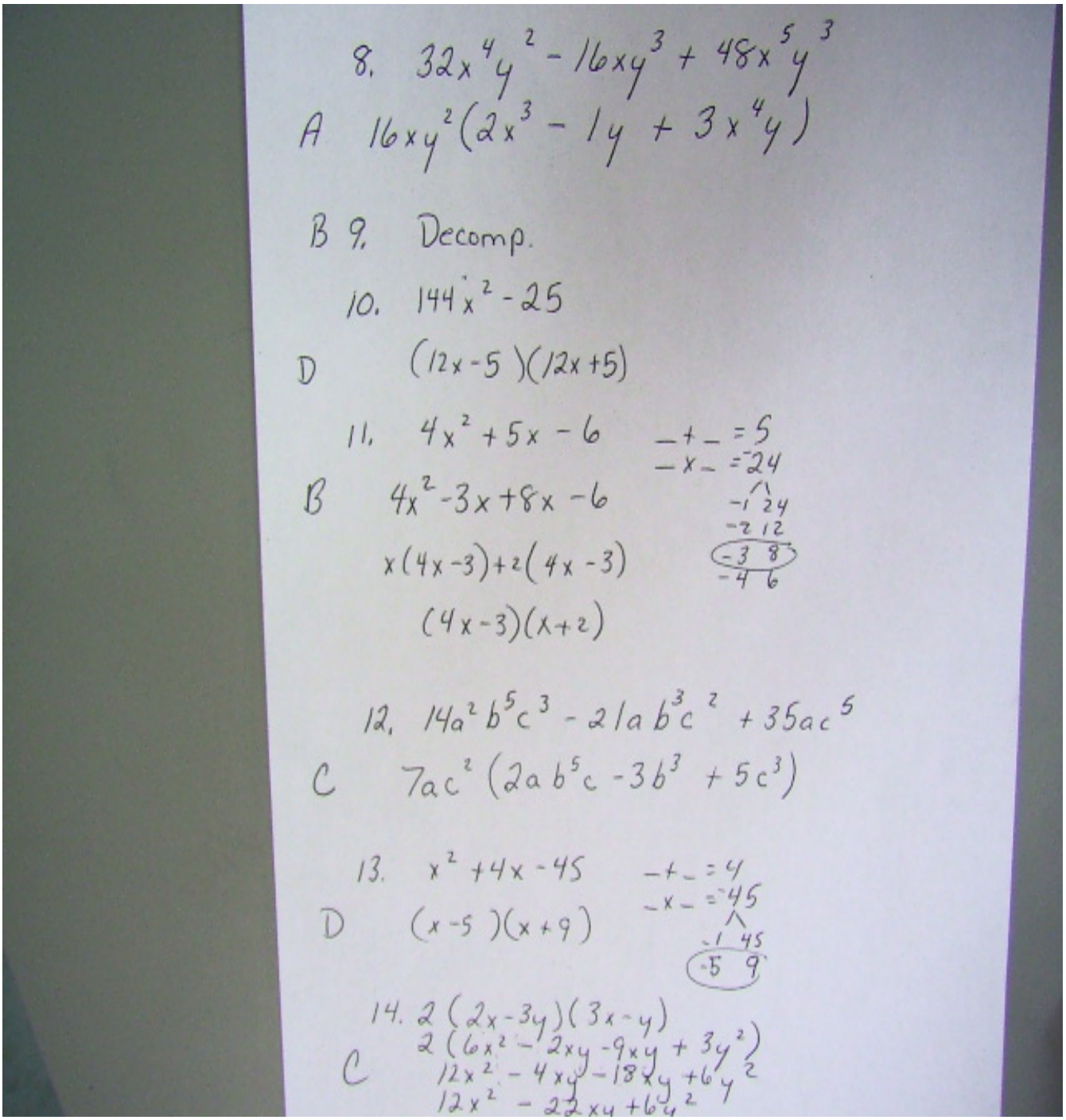
7. $5x+2y=2$

$\frac{2y}{2}=\frac{2}{2}-\frac{5x}{2}$

$y=1-\frac{5}{2}x$

$m=-\frac{5}{2} \perp +\frac{2}{5}$

D



8. $32x^4y^2 - 16xy^3 + 48x^5y^3$

A $16xy^2(2x^3 - 1y + 3x^4y)$

B 9. Decomp.

10. $144x^2 - 25$

D $(12x-5)(12x+5)$

11. $4x^2 + 5x - 6$ $\quad -+- = 5$, $-\times- = -24$

B $4x^2 - 3x + 8x - 6$

$x(4x-3) + 2(4x-3)$

$(4x-3)(x+2)$

-1 24
-2 12
-3 8
-4 6

12. $14a^2b^5c^3 - 21ab^3c^2 + 35ac^5$

C $7ac^2(2ab^5c - 3b^3 + 5c^3)$

13. $x^2 + 4x - 45$ $\quad -+- = 4$, $-\times- = -45$

D $(x-5)(x+9)$

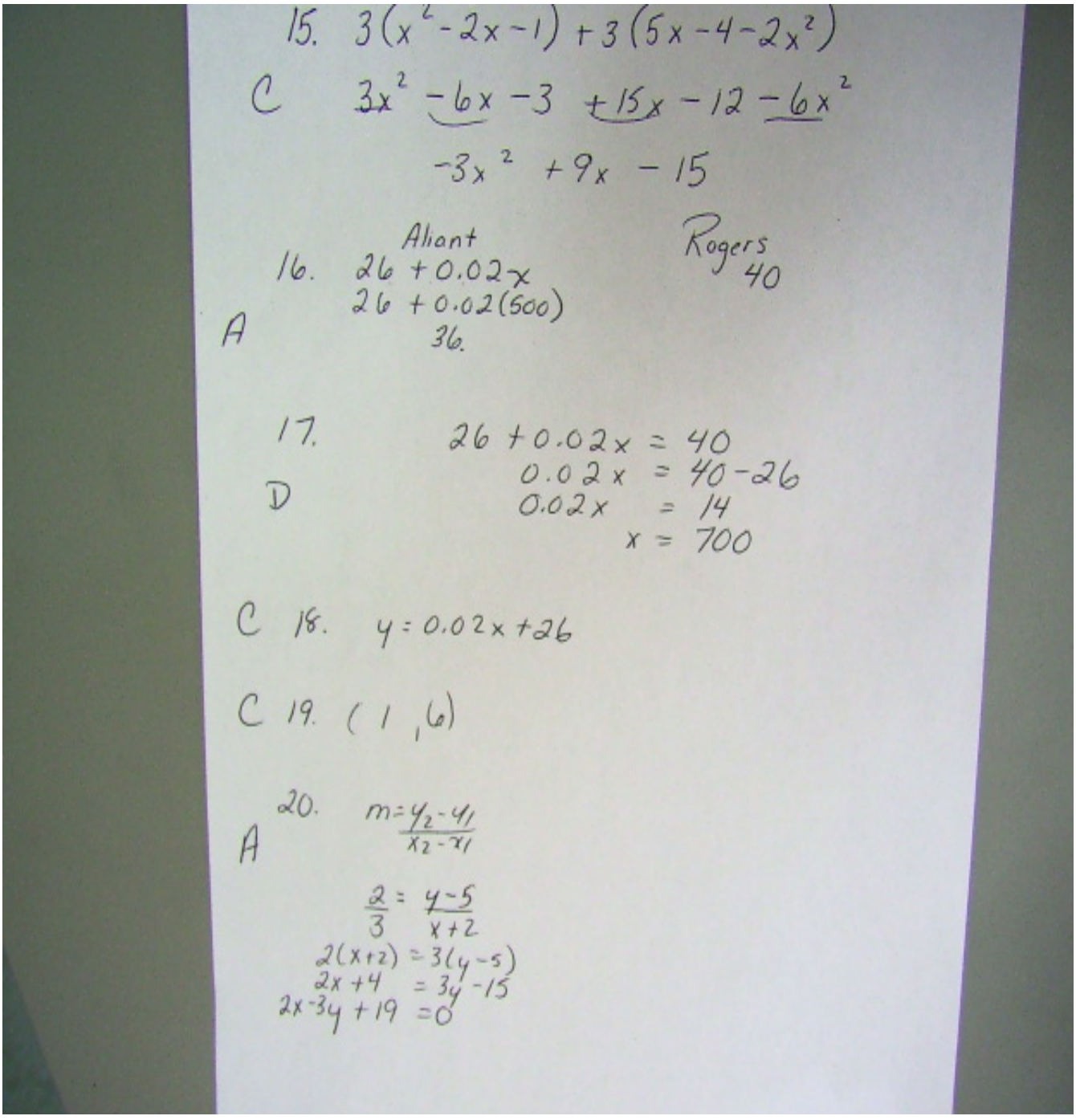
-1 45
-5 9

14. $2(2x-3y)(3x-y)$

$2(6x^2 - 2xy - 9xy + 3y^2)$

C $12x^2 - 4xy - 18xy + 6y^2$

$12x^2 - 22xy + 6y^2$



15. $3(x^2-2x-1)+3(5x-4-2x^2)$

C $3x^2-6x-3+15x-12-6x^2$

$-3x^2+9x-15$

16. Aliant $26+0.02x$ Rogers 40

$26+0.02(500)$

A $36.$

17. $26+0.02x=40$

D $0.02x=40-26$

$0.02x=14$

$x=700$

C 18. $y=0.02x+26$

C 19. $(1,6)$

20. $m=\frac{y_2-y_1}{x_2-x_1}$

A

$\frac{2}{3}=\frac{y-5}{x+2}$

$2(x+2)=3(y-5)$

$2x+4=3y-15$

$2x-3y+19=0$

21. ↕ slope $\frac{1}{0}$ $m=\frac{y_2-y_1}{x_2-x_1}$

point $(-6,-7)$ (x,y)

D $\frac{1}{0}=\frac{y+7}{x+6}$

$1(x+6)=0(y+7)$

$x+6=0$

22. $m=\frac{y_2-y_1}{x_2-x_1}$

A $\frac{1}{3}=\frac{K-(-1)}{6-(-2)}$

$\frac{1}{3}=\frac{K+1}{6+2}$

$3(K+1)=1(6+2)$

$3K+3=6+2$

$3K=6+2-3$

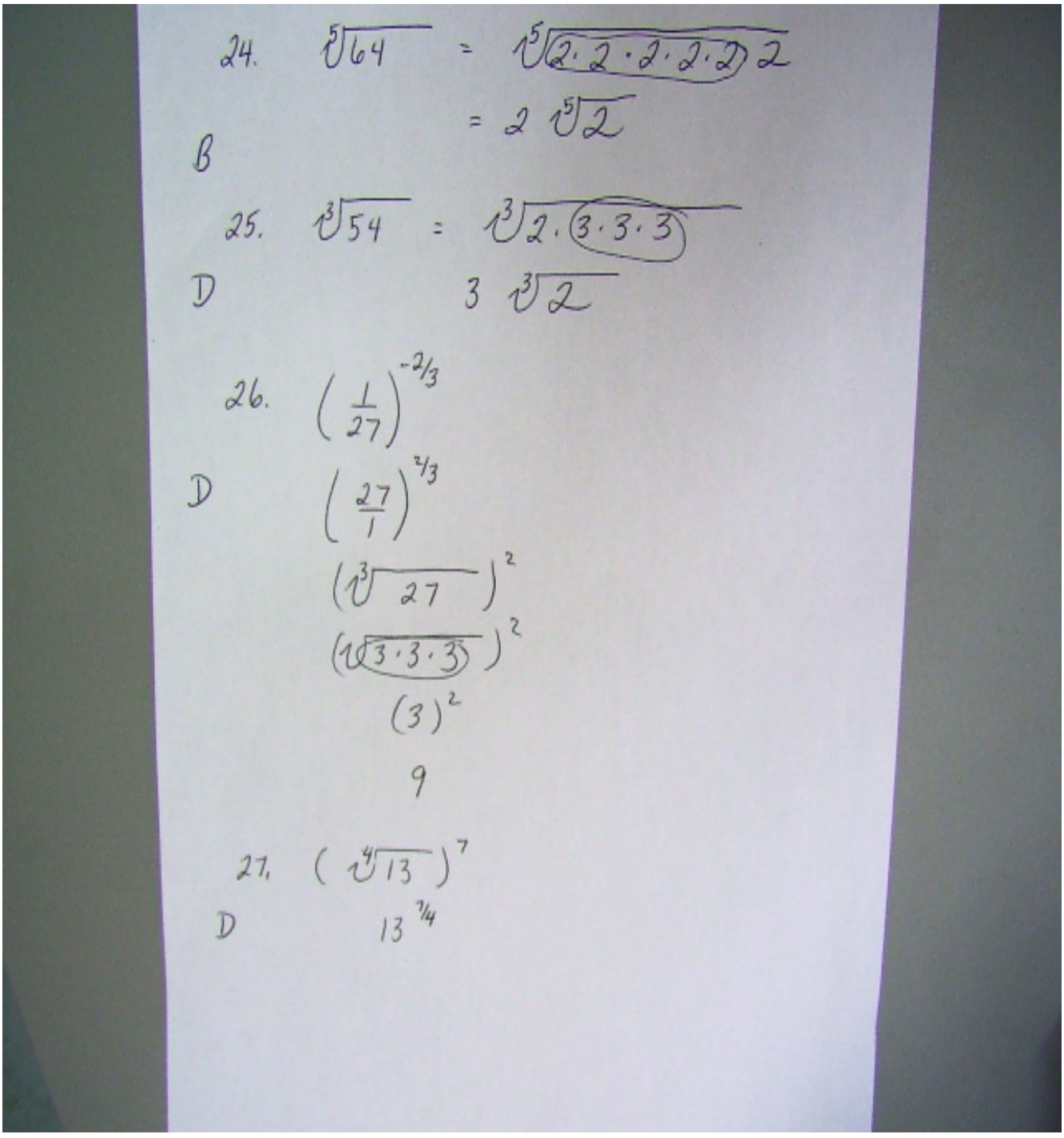
$3K=5$

$K=\frac{5}{3}$

23. $y=mx+b$

B $y=\frac{2}{4}x-2$

$y=\frac{1}{2}x-2$



24. $\sqrt[5]{64} = \sqrt[5]{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2}\,2$

$= 2\sqrt[5]{2}$

B

25. $\sqrt[3]{54} = \sqrt[3]{2 \cdot (3 \cdot 3 \cdot 3)}$

D $\quad 3\sqrt[3]{2}$

26. $\left(\frac{1}{27}\right)^{-2/3}$

D $\quad \left(\frac{27}{1}\right)^{2/3}$

$\left(\sqrt[3]{27}\right)^2$

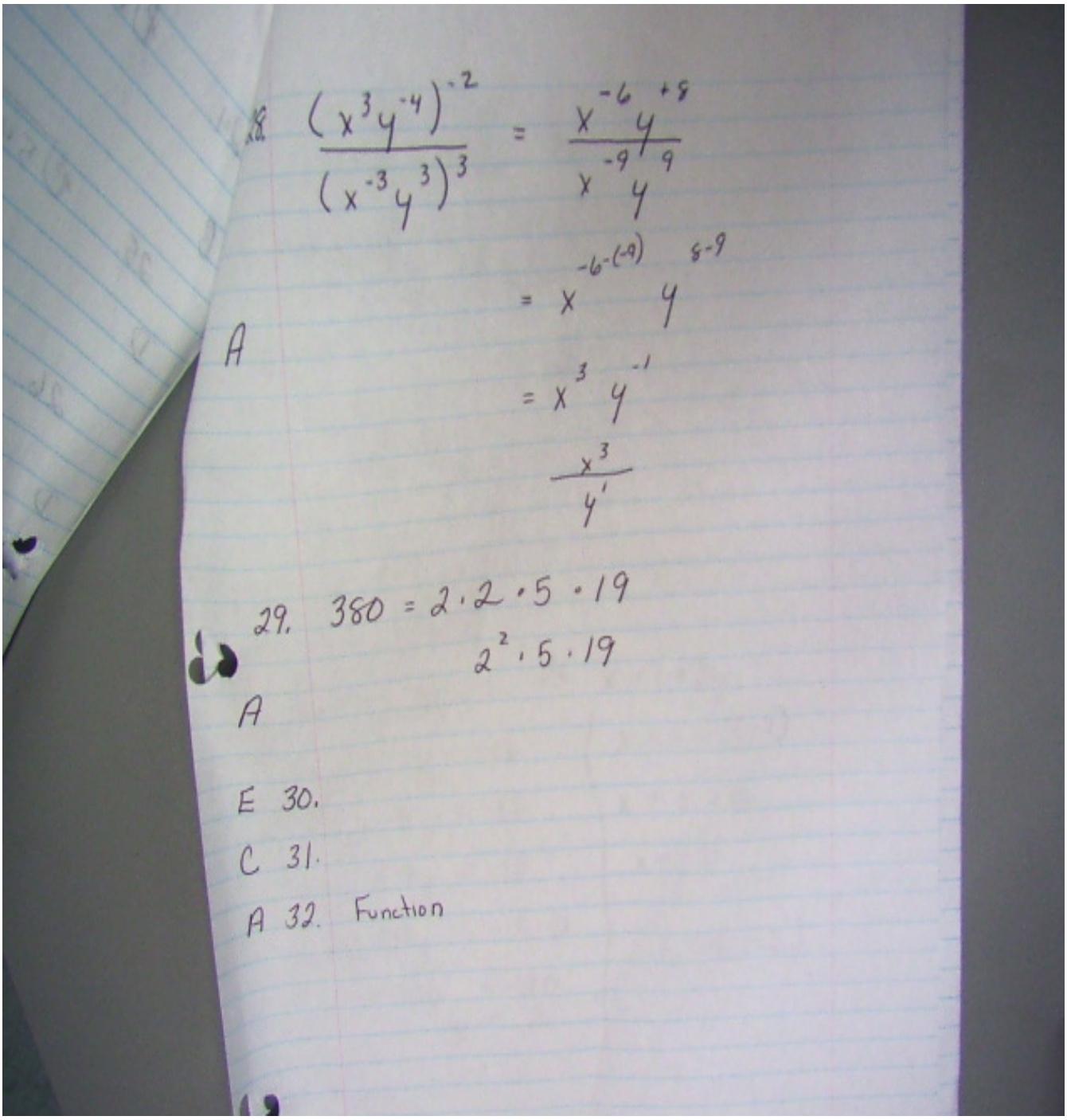
$\left(\sqrt[3]{3 \cdot 3 \cdot 3}\right)^2$

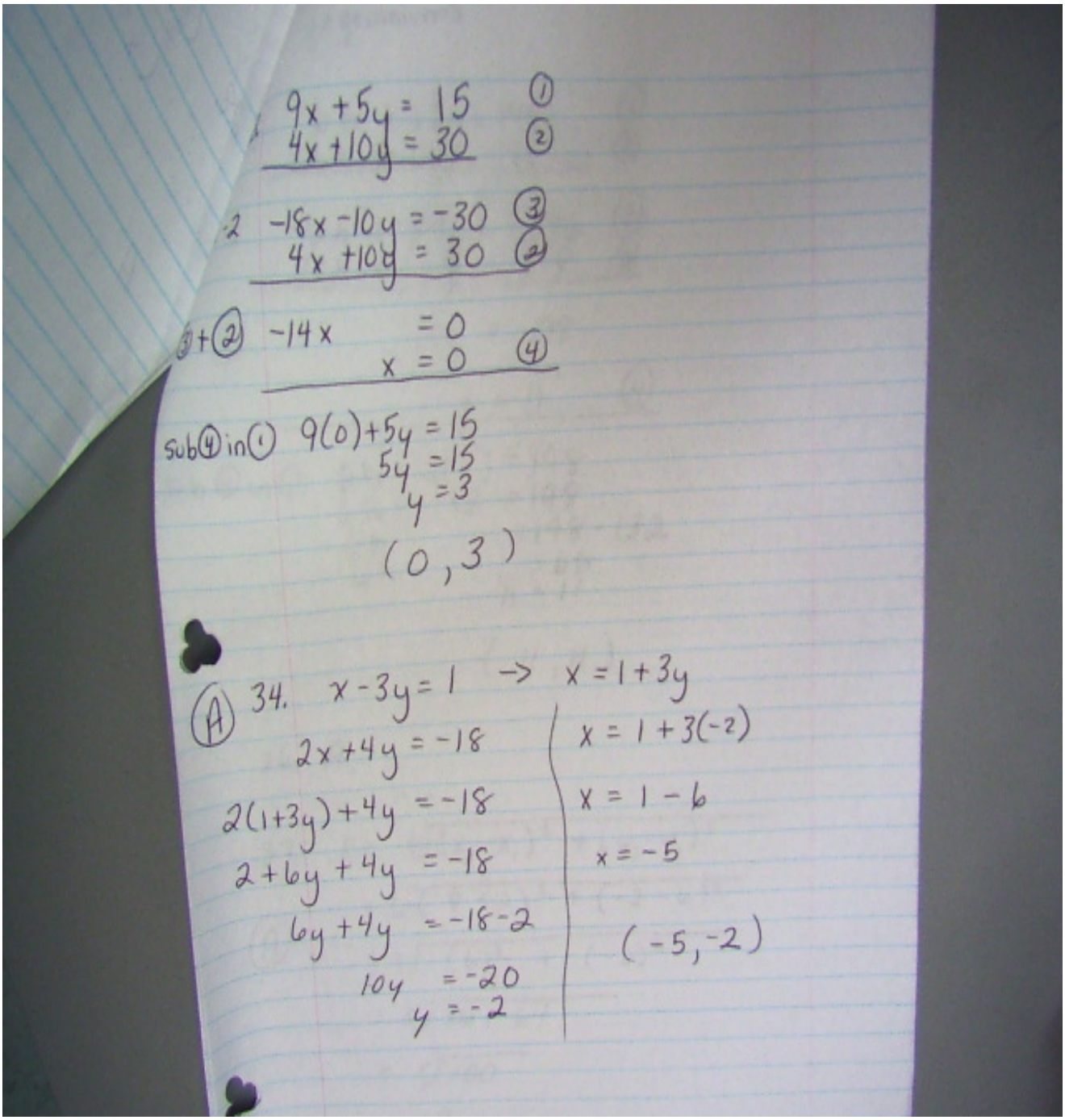
$(3)^2$

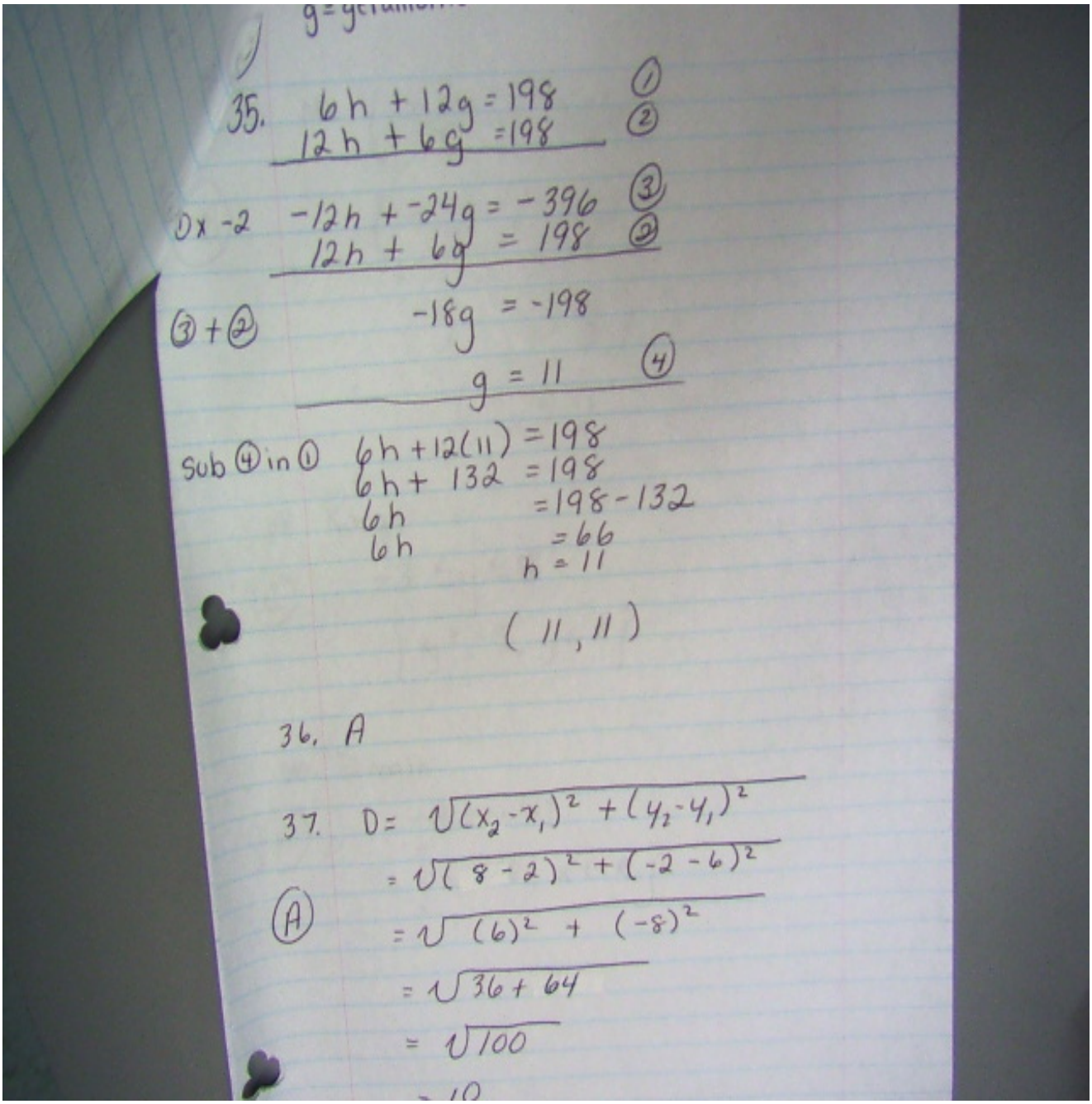
9

27. $\left(\sqrt[4]{13}\right)^7$

D $\quad 13^{7/4}$


28. $\frac{(x^3y^{-4})^{-2}}{(x^{-3}y^3)^3} = \frac{x^{-6}y^8}{x^{-9}y^9}$
$= x^{-6-(-9)}y^{8-9}$
$= x^3y^{-1}$
$\frac{x^3}{y^1}$
A
29. $380 = 2 \cdot 2 \cdot 5 \cdot 19$
$2^2 \cdot 5 \cdot 19$
A
E 30.
C 31.
A 32. Function


9x + 5y = 15 ①
4x + 10y = 30 ②
-2 -18x - 10y = -30 ③
4x + 10y = 30 ②
③ + ② -14x = 0
x = 0 ④
sub ④ in ① 9(0) + 5y = 15
5y = 15
y = 3
(0, 3)
(A) 34. x - 3y = 1 → x = 1 + 3y
2x + 4y = -18
2(1 + 3y) + 4y = -18
2 + 6y + 4y = -18
6y + 4y = -18 - 2
10y = -20
y = -2
x = 1 + 3(-2)
x = 1 - 6
x = -5
(-5, -2)



g = gerbil

35. $6h + 12g = 198$ ①
$12h + 6g = 198$ ②

① x -2 $-12h + -24g = -396$ ③
$12h + 6g = 198$ ②

③ + ② $-18g = -198$

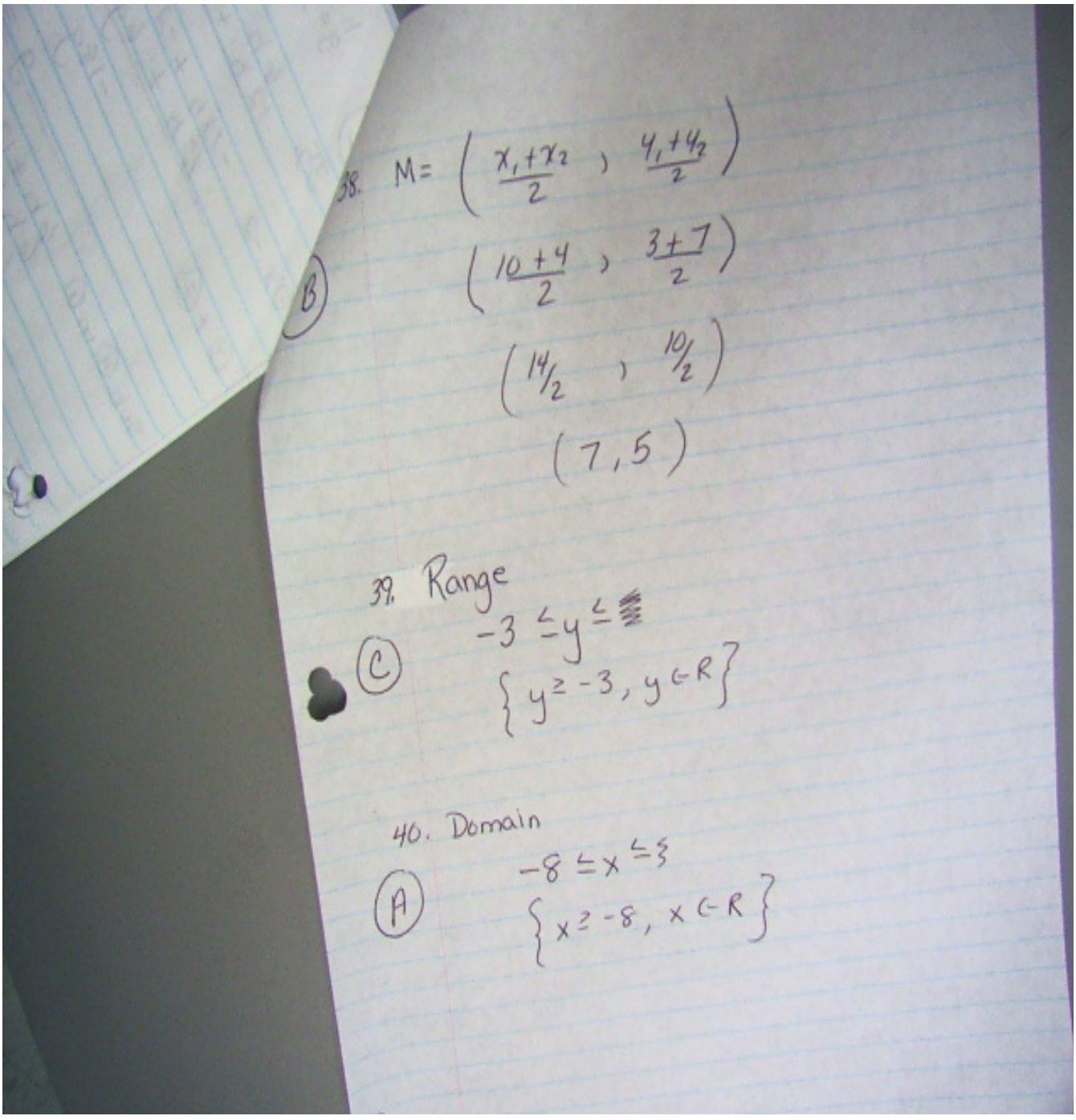
$g = 11$ ④

Sub ④ in ① $6h + 12(11) = 198$
$6h + 132 = 198$
$6h = 198 - 132$
$6h = 66$
$h = 11$

(11, 11)

36. A

37. $D = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$
$= \sqrt{(8 - 2)^2 + (-2 - 6)^2}$
(A) $= \sqrt{(6)^2 + (-8)^2}$
$= \sqrt{36 + 64}$
$= \sqrt{100}$
$= 10$


38. M = ((x1+x2)/2 , (y1+y2)/2)
(B)
((10+4)/2 , (3+7)/2)
(14/2 , 10/2)
(7, 5)
39. Range
(C)
-3 ≤ y ≤
{ y ≥ -3, y ∈ R }
40. Domain
(A)
-8 ≤ x ≤ 5
{ x ≥ -8, x ∈ R }