

7 = #1 Solution DND

1. $\frac{x-1}{3} = k, k=3$

$\frac{x-1}{3} = 3$

3. $(\frac{x-1}{3}) = (3) \cdot 3$

$x-1 = 9$

$x = 10$ D

2. Armand: 5m

Tyrone: 4p

Total: 5m+4p

C

3. $P = 10B - 23d$

$P = -23d + 10B$

$y = mx + b$

start with 10B

phones and

fixes 23 per day

B

4. $(x^2y - 3y^2 + 5xy^2) - (-x^2y + 3xy^2 - 3y^2)$

$x^2y - 3y^2 + 5xy^2 + x^2y - 3xy^2 + 3y^2$

$x^2y + x^2y - 3y^2 + 3y^2 + 5xy^2 - 3xy^2$

$2x^2y + 2xy^2$

C

5. $h = 3a + 2B.6$

$y = mx + b$

at age 2 boys
are about 2B.6 inches
and growing 3 inches
per year.

A

6. $\frac{a}{b} = 2$

$\frac{b}{a} = \frac{1}{2}$

$\frac{1}{1} \cdot \frac{b}{a} = \frac{1}{2} \cdot \frac{4}{1}$

$\frac{4b}{a} = \frac{4}{2} = 2$ C

7. $\begin{cases} 3x + 4y = -23 \\ 2y - x = -19 \end{cases}$

3. $\begin{cases} 3x + 4y = -23 \\ (-x + 2y) = (-19) \cdot 3 \end{cases}$

$\begin{cases} 3x + 4y = -23 \\ -3x + 6y = -57 \\ 10y = -80 \\ y = -8 \end{cases}$ B

$-x + 2(-8) = -19$

$-x - 16 = -19$

$-x = -3$

$x = 3$ (3, -8)

8. $b = 2.35 + 0.25x$

$c = 1.75 + 0.40x$

Find x when b=c.
then find b.

$2.35 + 0.25x = 1.75 + 0.40x$

$0.60 + 0.25x = 0.40x$

$0.60 = 0.15x$

$4 = x$

$b = 2.35 + 0.25(4)$

$b = 2.35 + 1.00$

$b = 3.35$ D

$$9. \begin{cases} x+y = -9 \\ x+2y = -25 \end{cases}$$

$$\begin{cases} (x+y = -9) \cdot -2 \\ x+2y = -25 \end{cases}$$

$$\begin{cases} -2x-2y = 18 \\ x+2y = -25 \end{cases}$$

$$-x = -7$$

$$\boxed{x = 7}$$

$$10. \begin{aligned} y &= kx, \quad y=24, \quad x=6 \\ 24 &= k(6) \\ 4 &= k \end{aligned}$$

$$\begin{aligned} y &= 4x \quad \text{find } y \text{ when} \\ y &= 4(5) \quad x=5 \\ y &= 20 \end{aligned} \quad \boxed{C}$$

$$11. \quad y = \frac{1}{7}x + 0 \quad \boxed{D}$$

- A) (0, 7) no $y = \frac{1}{7}(0) = 0$
 B) (1, 7) no $y = \frac{1}{7}(1) = \frac{1}{7}$
 C) (7, 7) no $y = \frac{1}{7}(7) = 1$
 D) (14, 2) yes $y = \frac{1}{7}(14) = 2$

$$12. \begin{aligned} (ax+2)(bx+7) \\ abx^2 + 7ax + 2bx + 14 \\ abx^2 + (7a+2b)x + 14 \\ 15x^2 + cx + 14 \end{aligned}$$

$$ab = 15 \quad a+b = 8$$

$$\begin{aligned} \text{so } a=3 \quad b=5 \\ \text{or } a=5 \quad b=3 \end{aligned}$$

$$c = 7a + 2b$$

$$c = 7(3) + 2(5) = \boxed{31}$$

$$\text{or } c = 7(5) + 2(3) = \boxed{41}$$

\boxed{D}

$$13. \quad 16 + 4x = 10 + 14$$

$$16 + 4x = 24$$

$$4x = 8$$

$$x = 2$$

$$8x = 16 \quad \boxed{C}$$

$$14. \quad |n-1| + 1 = 0$$

$$|n-1| = -1$$

no solution \boxed{D}

$$15. \quad 3x - 5 \geq 4x - 3$$

$$-5 \geq x - 3$$

$$-2 \geq x$$

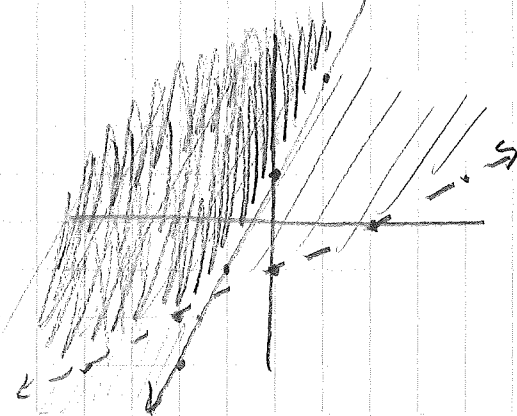
$$x \leq -2$$

\boxed{A}



$$16. \quad y \geq 2x + 1$$

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



\boxed{C}

$$17. \quad \boxed{A}$$

18. Careful on the slope
the horizontal scale
four squares = 1 hour

slope up \$3 every 1 hour

$$y = 3x + 5$$

$$c = 3h + 5$$

\boxed{C}