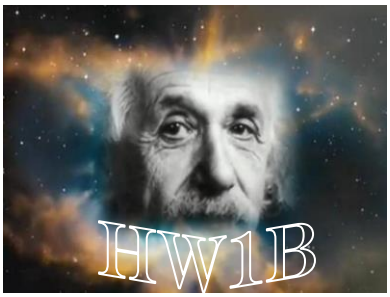

Find the slope of the line joining the points whose coordinates are given.

1) (4, 2) & (9, 5)

2) (0, 4) & (12, 0)

3) (-4, -2) & (2, -6)

4) (-2, 6) & (2, -2)

5) (8, 5) & (-7, 5)

6) (-3, 8) & (-3, -2)

7) (0.25, 1.5) & (0.5, 1)

8) $\left(-\frac{1}{3},2\right)$ & $\left(\frac{1}{4},-\frac{1}{3}\right)$

9) $\left(a,\frac{a}{b}\right)$ & $\left(b,\frac{a}{b}\right)$

Find the slope and the y-intercept of the line whose equation is given.

10) y = 3x + 5

11) 4x – 2y = 8

12) 3y = 11x

13) y = 5

Determine the equation's graphs that are parallel to one another, and which ones are perpendicular.

14) (a) $y=\frac{5}{2}x-8$ (b) $-15x+6y-10=0$ (c) $4x+10y=15$

15) (a) $3y=5x-5$ (b) $y=-\frac{3}{5}x+4$ (c) $10y=-6x-7$

16) Show that the line through (2, -3) and (7, 2) is perpendicular to the line through (-3, 7) and (2, 2).

17) Show that the line through (2, 3) and (5, -2) is perpendicular to the line with equation: 3x – 5y = 15.

18) Find the value of k if the line joining (4, k) and (6, 8) and the line joining (-1, 4) and (0, 8) are (a) parallel, and (b) perpendicular.

19) Given the points A(-4, -6), B(2, 4), C(8, 6) and D(2, -4)

(a) Show by using slopes that the quadrilateral *ABCD* is a parallelogram.

(b) Verify that both diagonals have the same midpoint.

20) Given the points W(-4, 1), X(2, 3), Y(4, 9) and Z(-2, 7)

(a) Show that quadrilateral *WXYZ* is a parallelogram with perpendicular diagonals.

(b) What is the special name given to this type of quadrilateral?

1) 3/5
2) -1/3
3) -2/3
4) -2
5) 0
6) no slope
7) -2
8) -4
9) 0
10) m = 3, b = 5
11) m = 2, b = -4
12) m = 11/3, b = 0
13) m = 0, b = 5
14) $a \parallel b$, $a \perp c$, $b \perp c$
15) $b \parallel c$, $a \perp b$, $a \perp c$
16-20) See Mr. Paull