Linear Sorting and Matching

Notes to teachers:

SORTS:

The 10 linear equation graphs can be sorted according to characteristics that they share.

The 10 equations can also be sorted according to characteristics that they share.

MATCHING

Here are some suggestions for how to use the 4 sets of cards as matching activities:

Match each graph with its equation.

Match each graph with its table of values.

Match each graph with its slope and y-intercept card.

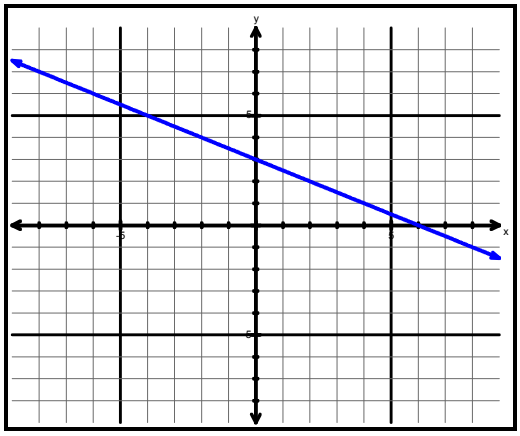
Match each graph with its equation, table of values, slope & y-intercept, and description cards.

LINEAR SORTING AND MATCHING

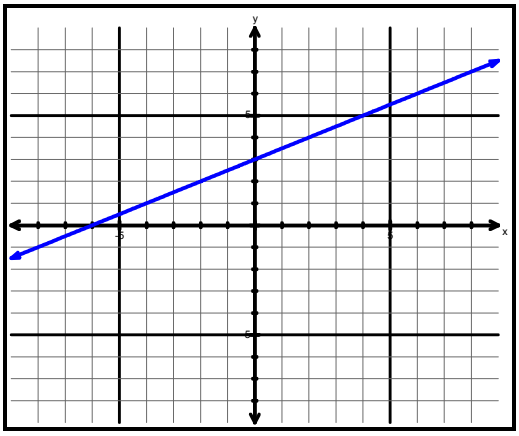
Work with your partner(s) to match each graph to its Equation, Slope & Y-Intercept, Table of Values, and Description

GRAPH	EQUATION	SLOPE & Y-INTERCEPT	TABLE OF VALUES	DESCRIPTION
A				
B				
C				
D				
E				
F				
G				
H				
I				
J				

A



B



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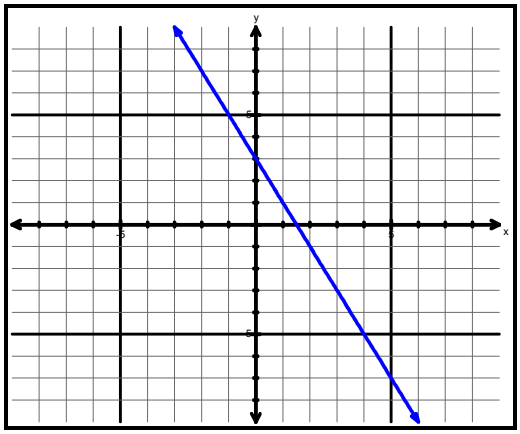

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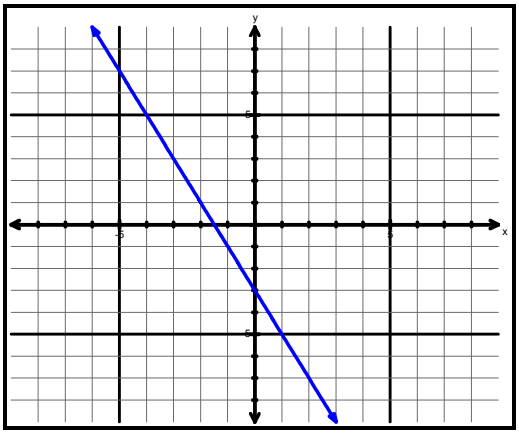

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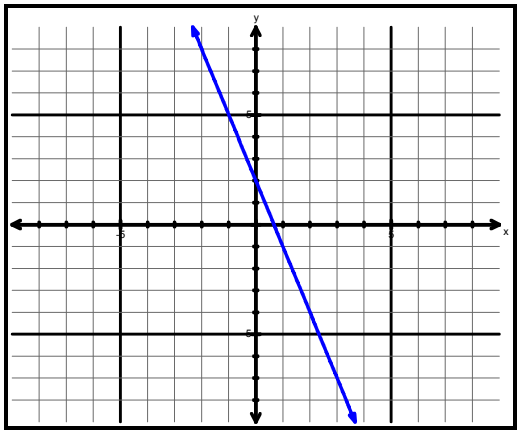

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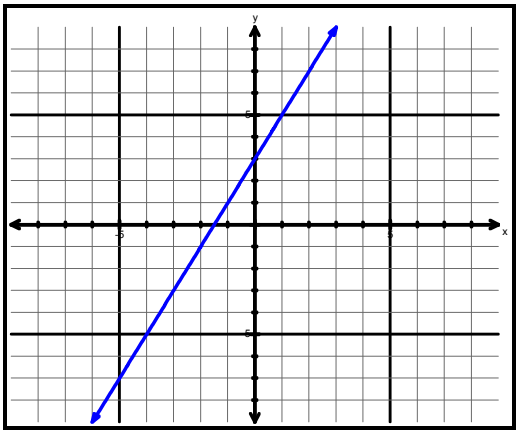
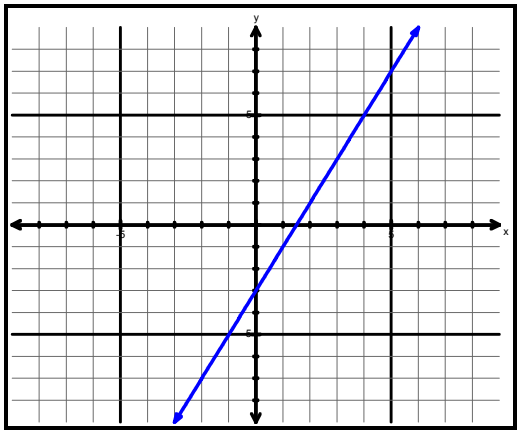
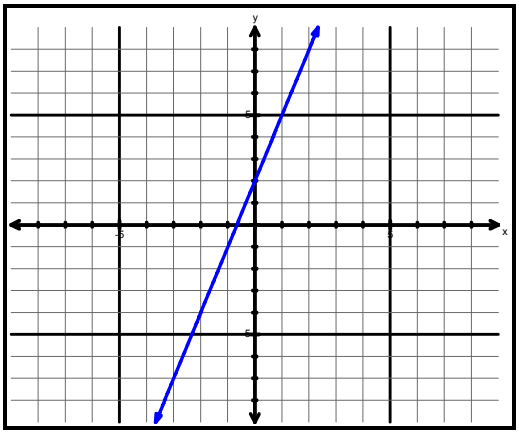
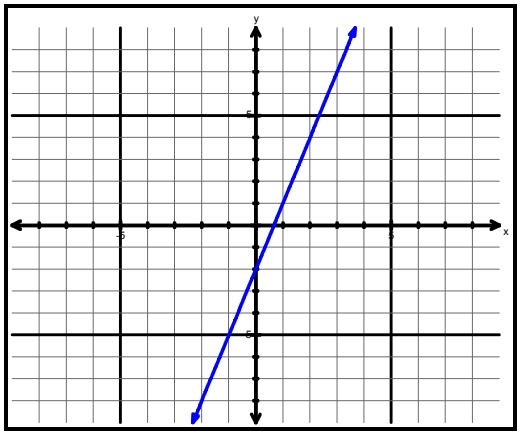
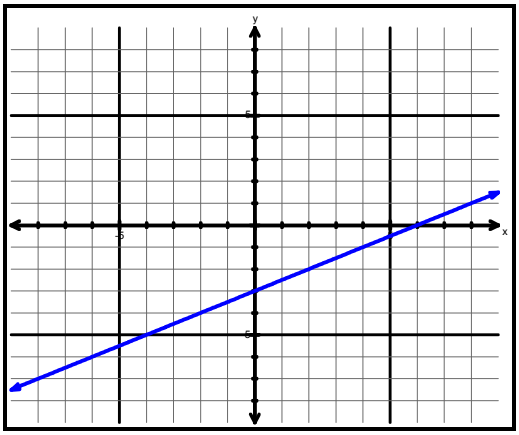


G 	**H** 
I 	J 

1 $y = -3 + \frac{1}{2}x$	2 $y = -3x + 2$
3 $2x - y = 3$	4 $3x - y = -2$
5 $y = -2x - 3$	6 $2x + y = 3$
7 $x + 2y = 6$	8 $y = 2x + 3$
9 $y = -2 + 3x$	10 $y = \frac{1}{2}x + 3$

11 slope: 2 y-intercept: 3	12 slope: 2 y-intercept: −3
13 slope: −2 y-intercept: −3	14 slope: 3 y-intercept: −2
15 slope: $\frac{1}{2}$ y-intercept: −3	16 slope: −2 y-intercept: 3
17 slope: $\frac{1}{2}$ y-intercept: 3	18 slope: $-\frac{1}{2}$ y-intercept: 3
19 slope: −3 y-intercept: 2	20 Slope: 3 y-intercept: 2

21

x	-2	0	2	4
y	-4	-3	-2	-1

22

x	-2	0	2	4
y	-4	2	8	14

23

x	-2	0	2	4
y	-1	3	7	11

24

x	-2	0	2	4
y	-7	-3	1	5

25

x	-2	0	2	4
y	7	3	-1	-5

26

x	-2	0	2	4
y	2	3	4	5

27

x	-2	0	2	4
y	-8	-2	4	10

28

x	-2	0	2	4
y	8	2	-4	-10

29

x	-2	0	2	4
y	4	3	2	1

30

x	-2	0	2	4
y	1	-3	-7	-11

31 **This graph has the same slope as graph B.**	**32** **This graph has the steepest negative slope.**
33 **This graph has a negative slope and a negative y-intercept.**	**34** **This line represented by this graph is perpendicular to graphs F and G.**
35 **This graph passes through (-1, -1) and has positive slope.**	**36** **The line represented by this graph is parallel to graph F.**
37 **This graph passes through the point (0, -2).**	**38** **This equation represented by this graph is equivalent to** $x - 2y = -6$.
39 **The line represented by this graph is parallel to graph D.**	**40** **The x-intercept of the line represented by this graph is between -1 and -2 and its slope is positive.**

LINEAR SORTING AND MATCHING

ANSWER SHEET

GRAPH	EQUATION	SLOPE & Y-INTERCEPT	TABLE OF VALUES	DESCRIPTION
A	7	18	29	34
B	10	17	26	38
C	6	16	25	39
D	5	13	30	33
E	2	19	28	32
F	8	11	23	40
G	3	12	24	36
H	4	20	22	35
I	9	14	27	37
J	1	15	21	31