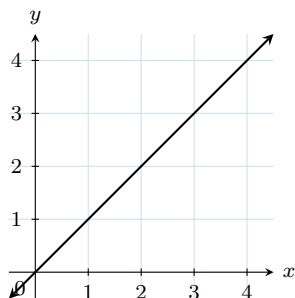


LINE EQUATIONS

A SLOPES

A.1 FINDING SLOPES OF LINES

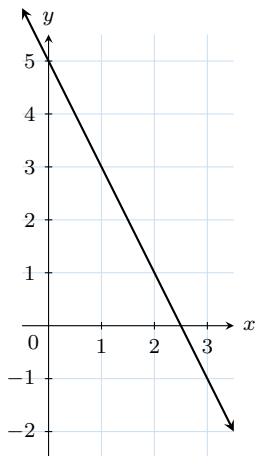
Ex 1:



Find the slope of the line:

slope =

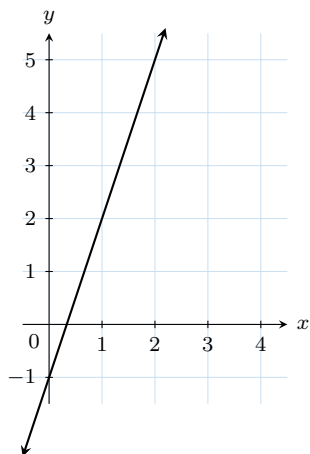
Ex 2:



Find the slope of the line:

slope =

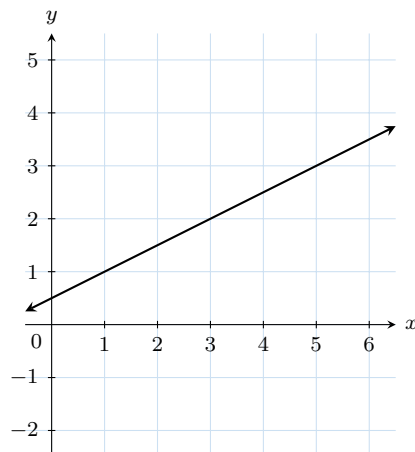
Ex 3:



Find the slope of the line:

slope =

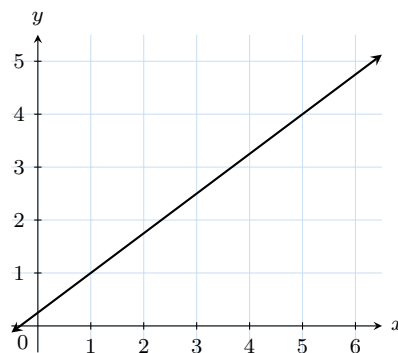
Ex 4:



Find the slope of the line:

slope =

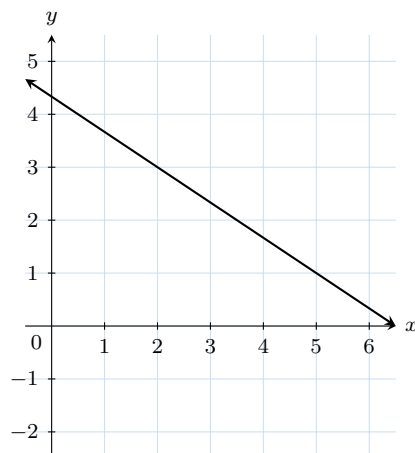
Ex 5:



Find the slope of the line:

slope =

Ex 6:

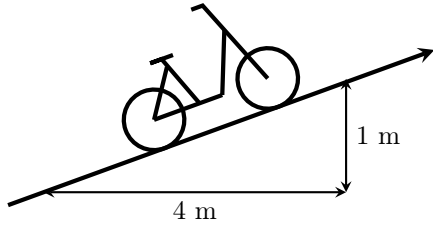


Find the slope of the line:

slope =

A.2 INTERPRETING SLOPE IN CONTEXT

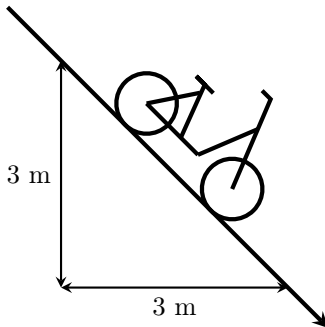
Ex 7:



Find the slope of the road:

slope =

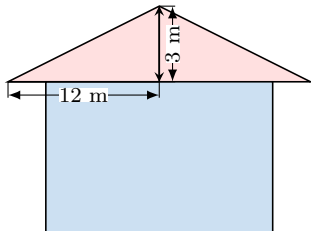
Ex 8:



Find the slope of the road:

slope =

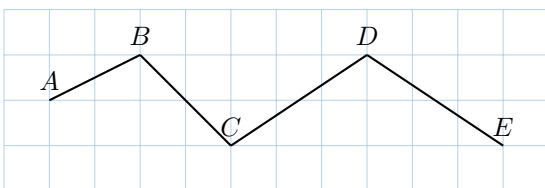
Ex 9:



Find the slope of the roof:

slope =

MCQ 10: You are following a trail through the mountains from point A to point E, traveling from left to right.

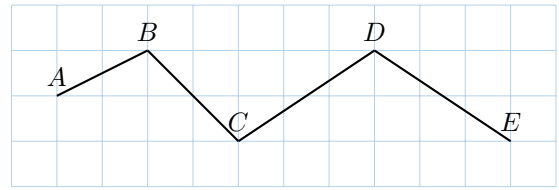


Identify the steepest upward segment.

- ☐ \overline{AB}
☐ \overline{BC}
☐ \overline{CD}

☐ \overline{DE}

MCQ 11: You are following a trail through the mountains from point A to point E, traveling from left to right.



Identify the steepest downward segment.

- ☐ \overline{AB}
☐ \overline{BC}
☐ \overline{CD}
☐ \overline{DE}

B SLOPE FORMULA

B.1 CALCULATING THE SLOPE

Ex 12: For $A(1, 2)$ and $B(5, 4)$, find the slope of the line \overleftrightarrow{AB} .

Slope of $\overleftrightarrow{AB} = \text{$

Ex 13: For $A(3, 0)$ and $B(4, 4)$, find the slope of the line \overleftrightarrow{AB} .

Slope of $\overleftrightarrow{AB} = \text{$

Ex 14: For $A(-1, 3)$ and $B(2, -1)$, find the slope of the line \overleftrightarrow{AB} .

Slope of $\overleftrightarrow{AB} = \text{$

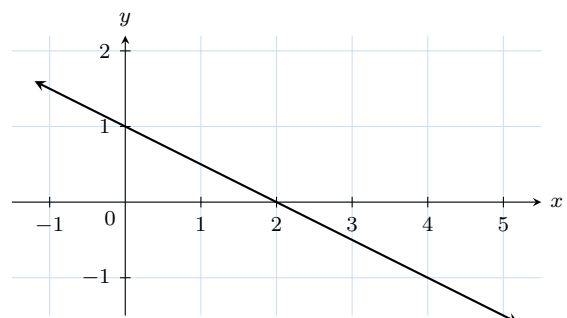
Ex 15: For $C(3, 1)$ and $D(1, 3)$, find the slope of the line \overleftrightarrow{CD} .

Slope of $\overleftrightarrow{CD} = \text{$

C y-INTERCEPT

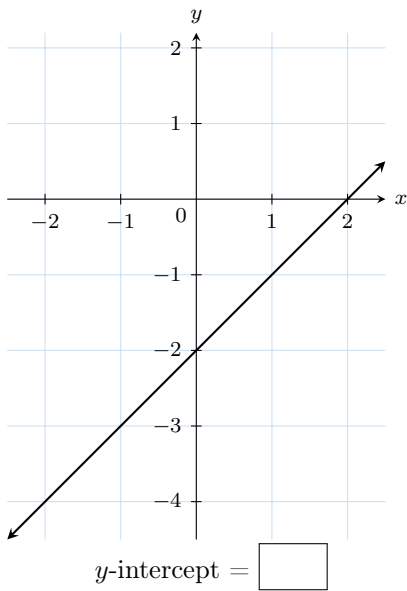
C.1 FINDING THE y-INTERCEPT

Ex 16:

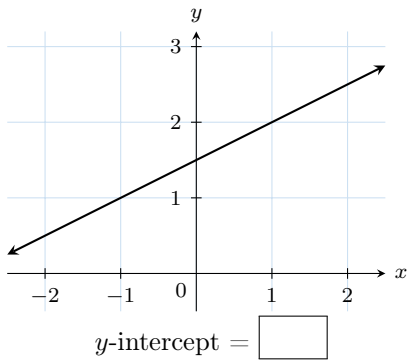


y-intercept =

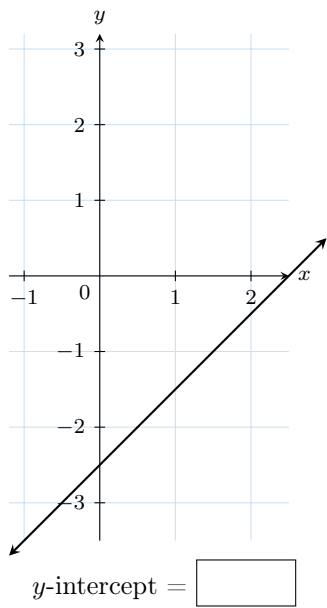
Ex 17:



Ex 18:



Ex 19:



D LINE EQUATIONS

D.1 COMPLETING A TABLE OF VALUES

Ex 20: For $y = x + 3$, fill in the table:


x	-2	-1	0	1	2
y	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Ex 21: For $y = -2x + 1$, fill in the table:


x	-2	-1	0	1	2
y	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Ex 22: For $y = 3x - 5$, fill in the table:

x	-2	-1	0	1	2
y	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Ex 23:  For $y = -2.5x - 2$, fill in the table:

x	-2	-1	0	1	2
y	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Ex 24:  For $y = 0.5x + 1$, fill in the table:

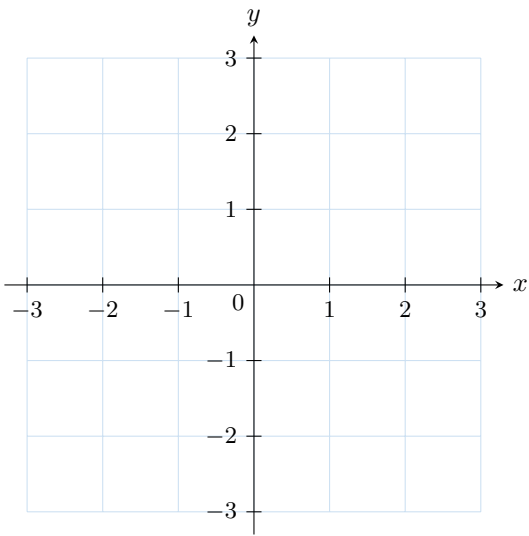
x	-2	-1	0	1	2
y	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

D.2 GRAPHING A LINE FROM TWO POINTS

Ex 25: Here is a table of values for the line equation $y = x - 1$:

x	0	2
y	-1	1

Plot the line.

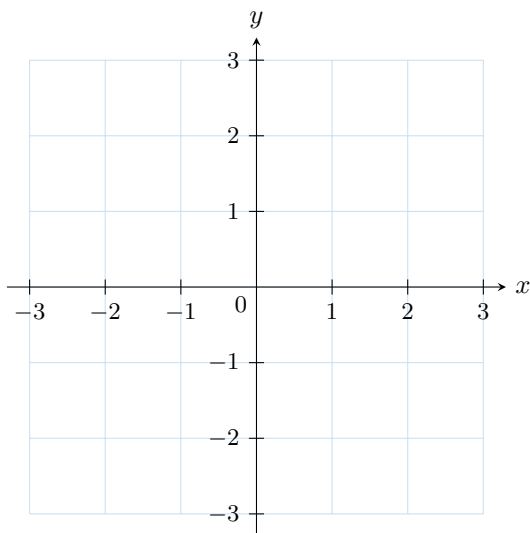


Ex 26: Here is a table of values for the line equation $y = 0.5x + 1$:

x	0	2
y	1	2

Plot the line.

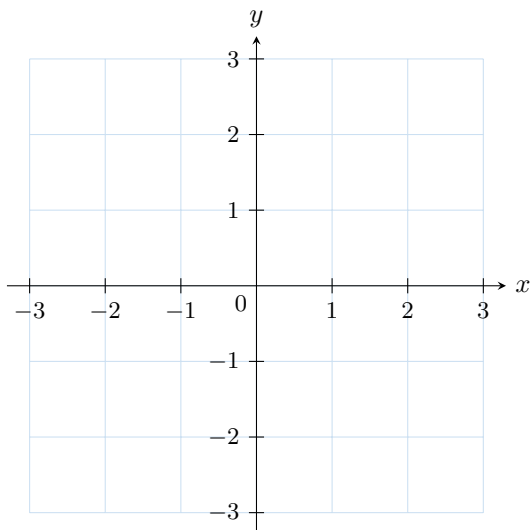




Ex 27: Here is a table of values for the line equation $y = -2x + 2$:

x	0	2
y	2	-2

Plot the line.



D.3 FINDING COORDINATE POINTS

Ex 28: Find the coordinates of the point A on the line with the equation $y = 2x + 1$:

$A(1, \boxed{})$

Ex 29: Find the coordinates of the point A on the line with the equation $y = -x + 2$:

$A(1.5, \boxed{})$

Ex 30: Find the coordinates of the point A on the line with the equation $y = -2x + 1$:

$A(-1, \boxed{})$

D.4 DETERMINING WHETHER A POINT IS ON A LINE

MCQ 31: Determine whether the point $(3, 6)$ lies on the line with the equation $y = 2x + 1$.

☐ Yes

☐ No

MCQ 32: Determine whether the point $(4, -3)$ lies on the line with the equation $y = -2x + 5$.

☐ Yes

☐ No

MCQ 33: Determine whether the point $(2, 2)$ lies on the line with the equation $y = x - 1$.

☐ Yes

☐ No

MCQ 34: Determine whether the point $(0, -2)$ lies on the line with the equation $y = 3x - 2$.

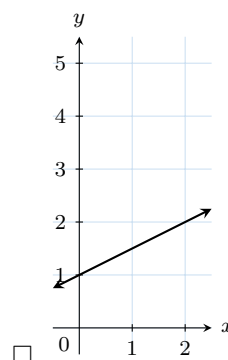
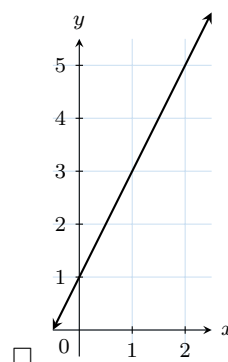
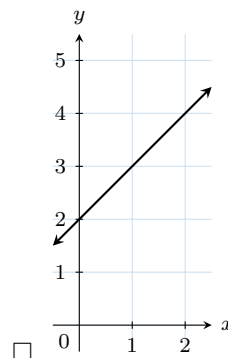
☐ Yes

☐ No

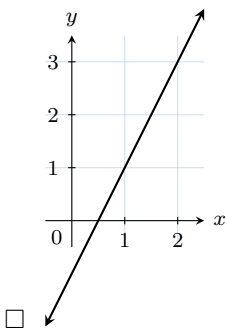
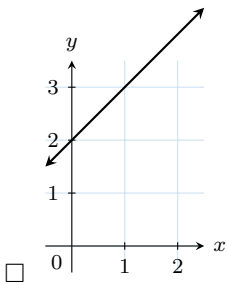
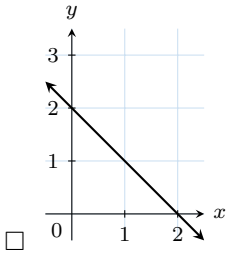
E GRAPHING LINE EQUATIONS

E.1 MATCHING EQUATIONS AND GRAPHS

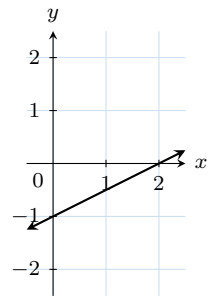
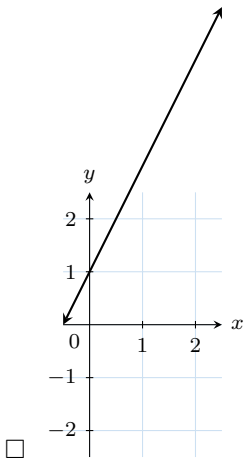
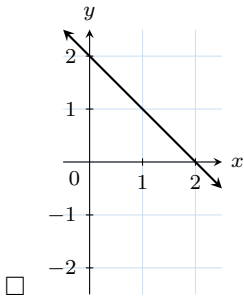
MCQ 35: Choose the graph corresponding to the line with the equation $y = 2x + 1$.



MCQ 36: Choose the graph corresponding to the line with the equation $y = -x + 2$.

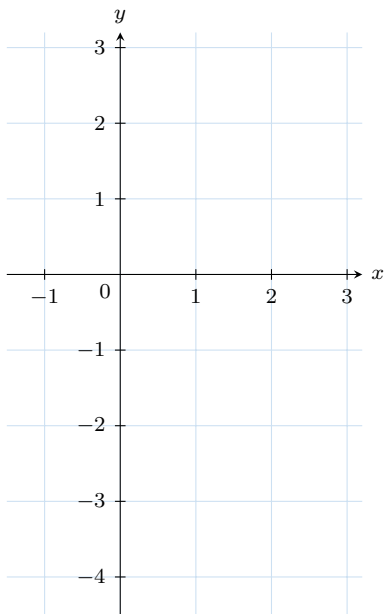


MCQ 37: Choose the graph corresponding to the line with the equation $y = 0.5x - 1$.

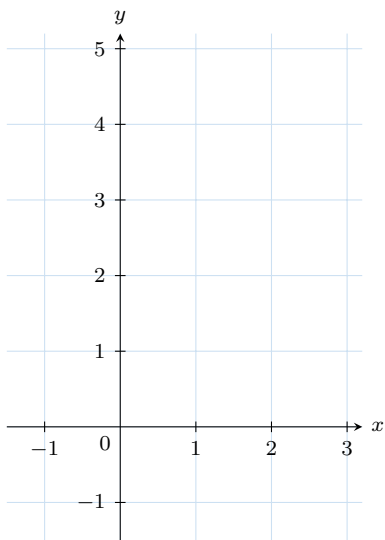


E.2 PLOTTING LINES FROM EQUATIONS

Ex 38: Plot the line equation $y = 2x - 1$:



Ex 39: Plot the line equation $y = -x + 3$:



Ex 40: Plot the line equation $y = -0.5x + 2$:

