

Name: _____

Assignment: Midterm Multiple Choice Analysis

Instructions: For each incorrect answer, identify the error that would lead to someone picking this correct answer. Use specific explanations. Writing “they mistakenly put a negative sign” is not specific enough. Writing “they thought that $14 - 18$ was $+4$ instead of -4 ” or “they divided by 2 when they should have divided by -2 ” is specific enough. If your explanation requires you to put some work down to show what you mean, you should do that too.

1) Write 4.04 as a fraction in lowest terms. (Correct answer: D)

A. $4\frac{2}{5}$

B. $4\frac{4}{99}$

C. $4\frac{1}{20}$

D. $4\frac{1}{25}$

<u>Error that leads to A</u>	<u>Error that leads to B</u>	<u>Error that leads to C</u>

3) Convert the mixed number $2\frac{3}{8}$ into a decimal. (Correct answer: C)

A. $2.2\bar{6}$

B. 2.3

C. 2.375

D. $2.\bar{6}$

<u>Error that leads to A</u>	<u>Error that leads to B</u>	<u>Error that leads to D</u>

11) Which of these is an irrational number? (Correct answer: C)

A. 0.121212 ...

B. 0.85764

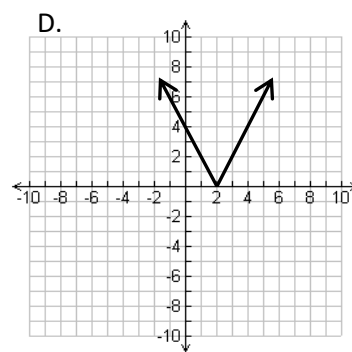
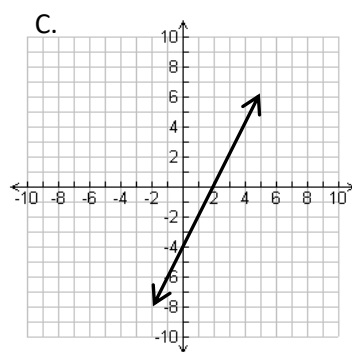
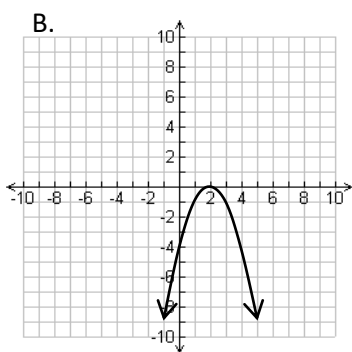
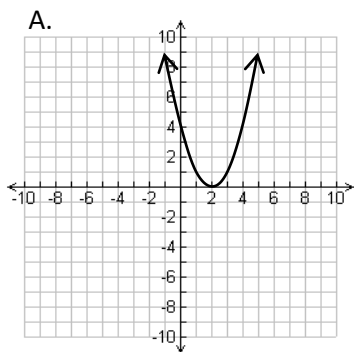
C. $\sqrt{50}$

D. $\sqrt{100}$

<u>Error that leads to A</u>	<u>Error that leads to B</u>	<u>Error that leads to D</u>

21) Complete the table and use it to find the correct graph of $b(x) = (x - 2)^2$. (Correct answer: A)

x	0	1	2	3	4
b(x)					



Error that leads to B

Error that leads to C

Error that leads to D

22) Choose the table that is linear. (Correct answer: B)

A.

x	1	2	4	7	11
y	5	10	15	20	25

B.

x	2	4	6	8	10
y	11	14	17	20	23

C.

x	1	2	3	4	5
y	20	16	11	5	1

D.

x	1	2	3	4	5
y	1	3	9	27	81

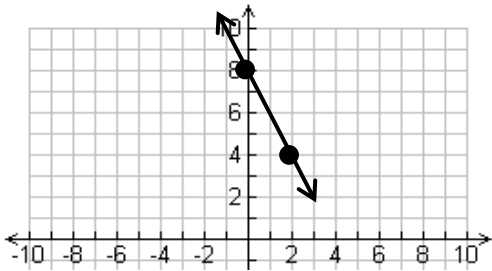
Error that leads to A

Error that leads to C

Error that leads to D

24) Find the slope of the line on the graph. (Correct answer: D)

- A. $\frac{1}{2}$ B. $-\frac{1}{2}$ C. 2 D. -2

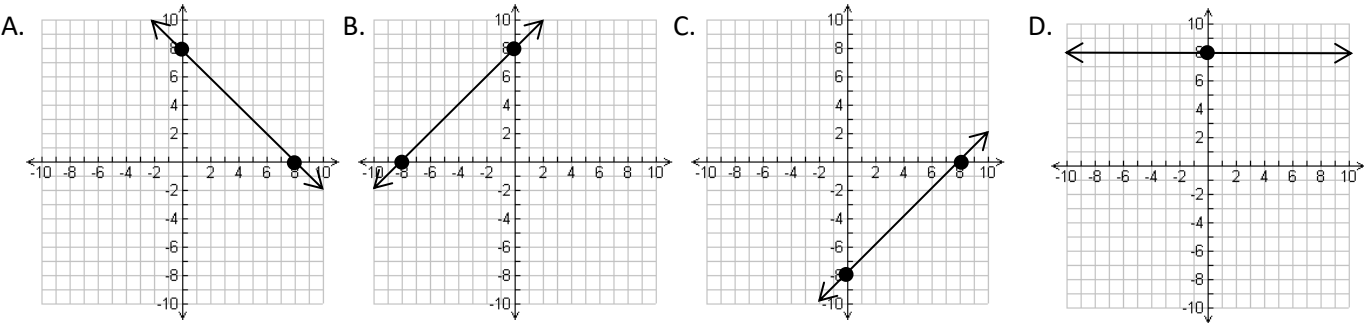


Error that leads to A

Error that leads to B

Error that leads to C

33) Which of these is the graph of the equation $x + y = 8$? (Correct answer: A)



Error that leads to B

Error that leads to C

Error that leads to D

35) Solve the equation: $\frac{1}{4}x + 16 = 20$ (Correct answer: C)

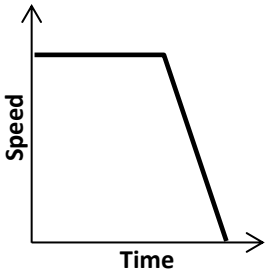
- A. $x = 1$ B. $x = 4$ C. $x = 16$ D. $x = 64$

Error that leads to A

Error that leads to B

Error that leads to D

50) Which of these situations matches this graph? Note: the y-axis is speed! (Correct answer: A)



- A. You are running at a quick pace. After a while, you get tired, so you slow down and eventually stop.
- B. You are at school, a long distance from home. When school is over, you walk home.
- C. You are walking on a path. This path leads to a steep hill. You weren't looking where you were going, so you trip and fall quickly all the way to the bottom.
- D. You are taking a midterm in your math class. You smile, because you have just reached the end of the test.

Error that leads to B	Error that leads to C	Error that leads to D

51) Choose TWO of the problems from your midterm that you missed. For each of these, say which answer you chose instead and explain why you missed the problem.

Problem # _____	Problem # _____