



**SAMPLES OF STANDARDS STUDENTS ARE LEARNING THIS NINE WEEKS:**

**8<sup>TH</sup> GRADE MATH**

**Standards: 8.EE.1, 8.EE.3, 8.F.1, 8.F.2, 8.F.3, 8.F.5, 8.NS.1**

**Standard 8.EE.1**

Which statement is true about the value of  $(6^{-n})(6^n)$ ?

- A** For  $n < 0$ , the value of the expression is greater than 1.
- B** For  $n > 0$ , the value of the expression is 0.
- C** For all  $n$ , the value of the expression is less than 1.
- D** For all  $n$ , the value of the expression is 1.

**Correct Answer: D**

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**Standard 8.E.E.3**

Which pairs of numbers in scientific notation show one number that is about 20 times as great as the other number?

Choose all that apply.

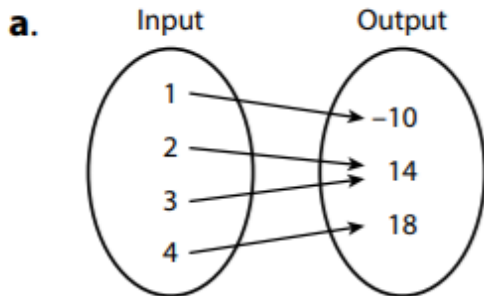
- A**  $2.01 \times 10^7$  and  $4.25 \times 10^6$
- B**  $5.97 \times 10^4$  and  $3.12 \times 10^3$
- C**  $4.91 \times 10^6$  and  $5.09 \times 10^3$
- D**  $8.21 \times 10^{-3}$  and  $4.13 \times 10^{-4}$
- E**  $2.94 \times 10^{-8}$  and  $6.22 \times 10^{-7}$

**Correct Answer: B, D, and E**

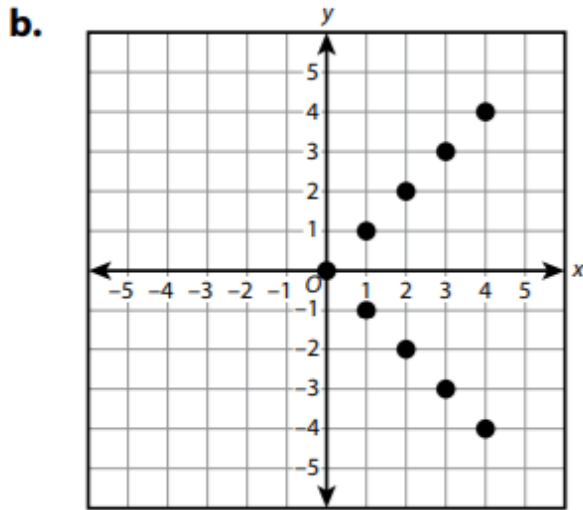
Standard 8.F.1.

Determine if each relationship represents a function.

Choose *Yes* or *No* for each relationship.



Yes  No



Yes  No

c.

<b>x (input)</b>	7	5	6	7	8
<b>y (output)</b>	5	2	4	8	6

Yes  No

d.  $y = \frac{1}{4}x$

Yes  No

e.  $x = y - 1$

Yes  No

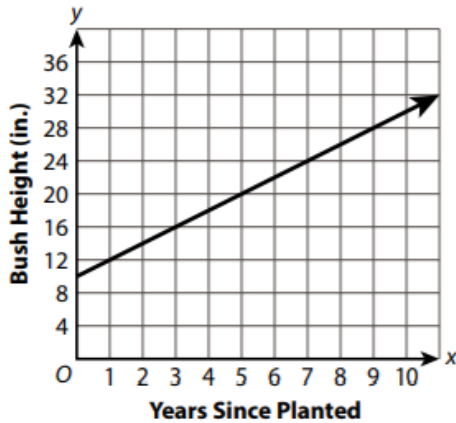
Correct Answer:

- a. Yes
- b. No
- c. No
- d. Yes
- e. Yes

Standard 8.F.2

Cecelia planted two bushes at the same time and measured their heights over several years. She represented each bush's growth as shown.

**Bush A:**



**Bush B:**

Had a height of 7.5 in. when planted;  
Grew at a constant rate of 2.5 in. per year

Which of the following statements are true?

Choose all that apply.

- A** Bush A has a greater rate of change than Bush B.
- B** Bush B has an initial value less than the initial value of Bush A.
- C** After 7 years, Bush B was 1 inch taller than Bush A.
- D** Bush B grows at a slower rate than Bush A.
- E** Bush A and Bush B were the same height when planted.

**Correct Answer: B and C**

Standard 8.F.3

Which of these functions are linear?

Choose all that apply.

**A**  $y + 4 = 2x$

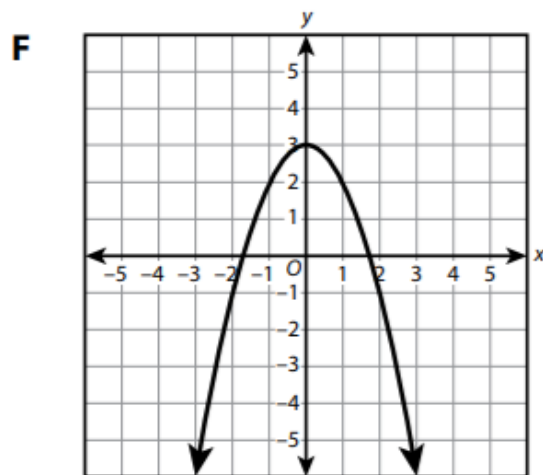
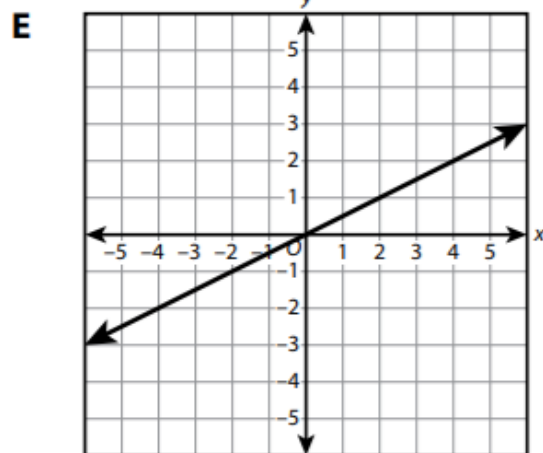
**B**  $y = 3 - x^2$

**C**

<b>x</b>	0	1	2	3	4
<b>y</b>	-1	-0.5	0	-0.5	-1

**D**

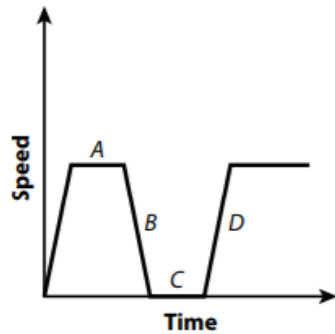
<b>x</b>	-2	-1	0	1	2
<b>y</b>	2.5	2.75	3	3.25	3.5



Correct Answer: A, D, and E

Standard 8.F.5

The graph shows the speed of Tony's car as he drives to work.



Which section of the graph could show where Tony was stopped at a traffic light?

**Answer: Section C**

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Standard 8.NS.1

Which expressions have a value between 7 and 8?

Choose all that apply.

- A**  $2\pi$
- B**  $\pi + 4$
- C**  $\sqrt{48}$
- D**  $\sqrt{56}$
- E**  $\sqrt{62}$

**Correct Answer: B, D, and E**