MCAS Practice (2021 Released Questions) ANSWERS

1. A

2. C

3. 10

4. C

5.

Transformation	Congruent	Similar but Not Congruent
a translation 4 units up and 2 units right	●	○
a 90° clockwise rotation, followed by a reflection over the *x*-axis	●	○
a reflection over the *y*-axis, followed by a dilation by a scale factor of 2 with the center at the origin	○	●
a dilation by a scale factor of 1.5 with the center at the origin, followed by a translation 5 units left	○	●

6. 10

7. C

8.

Linear Function	Nonlinear Function
$y = 2x + 1$	$y = x^2 - 1$
$y = -x$	$y = \frac{1}{3}x^2$
$y = \frac{1}{2}x - 5$	

9. C

10. 9

11. A. x = 20 (work must be shown)
B. Write any equation so that when simplified x = x, or simplifies to a = a where 'a' is any number
ex/ 3x + 5 = 3(x + 2) – 1, or even 3x + x = 4x
C. No solutions because when simplified 12 = –6, or 18 = 0
D. One solution. When solved x = 64/7

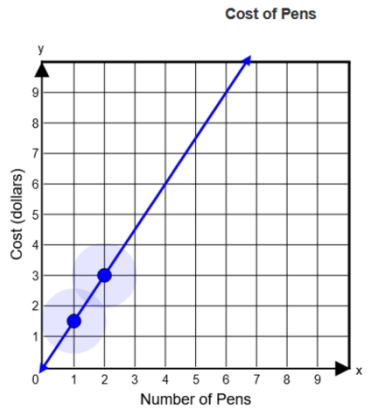
12. D

13. D

14. $9.6^2 + 7.2^2 = 12^2$

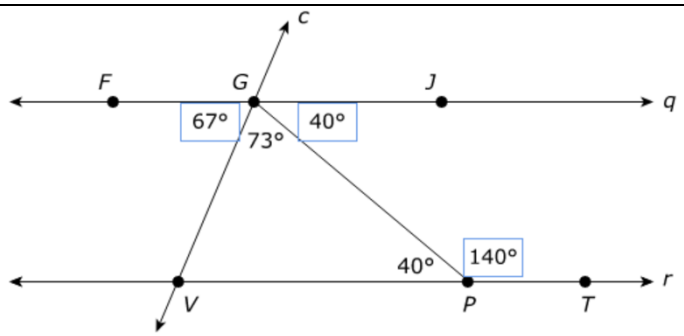
15. $y = 3x + 4$

16.



17. B

18.

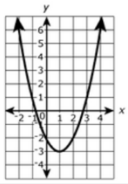
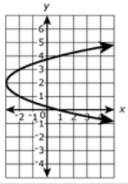
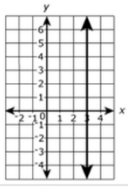
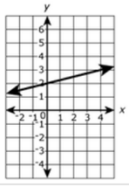


19. A. Translation 4 right, 2 down

B. It is congruent. Translations result in congruent images because every point of the preimage is moved the same distance in the same direction.

C. It is congruent. Reflections result in congruent images.

20. A.

Graph	Function	Not a Function
	●	○
	○	●
	○	●
	●	○

B. 7 or 12