



Answers for questions 1–20 must be exact
and in simplest form.

1. 2

2. 2.006×10^3

3. rhombus

4. A

5. $k = 7$

6. 59

7. 89

8. $\frac{7}{12}$

9. 45 points per game

10. 300 votes

11. $\frac{1}{4}$

12. A

13. Lowe: 30 Reinhardt: 30

14. $x = -6$

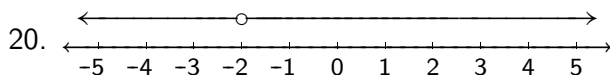
15. $e = -\frac{4}{3}$ or $-1.\bar{3}$

16. 162 pounds

17. $f(0) = -1$ $f(-2) = 4$ $f(3) = 26$

18. -3.1 or $-\frac{31}{10}$

19. 1



Answers for questions 21–40 may be exact
OR correctly rounded to four decimal places.

21. 1969

22. $\mathbf{w} = 5\mathbf{i} + 3\mathbf{j}$

23. $m = -\frac{1}{2}$, $b = \frac{5}{2}$

24. no solution or $\{\}$ or \emptyset or impossible

25. $a = 1$, $b = -1$

26. 27 in^3

27. $m\widehat{PO} = 129$ degrees

28. 2 and 3 *need both*

29. 240 ft

30. 0

31. $(2, -\frac{39}{8})$ or $(2, -4\frac{7}{8})$ or $(2, -4.875)$

32. $c = 14\sqrt{2}$ or 19.7990 or $\sqrt{392}$

33. $\sum_{k=1}^6 k^2$

34. 14.4 kph

35. 24

36. $6\sqrt{6}$ or 14.6969 or $\frac{18\sqrt{2}}{\sqrt{3}}$ cm

37. Brahmagupta or 30 u^2

38. 3.6872 or $\sqrt{\frac{1849}{136}}$ or $\frac{43}{2\sqrt{34}}$

39. 9

40. 60.3 mph