

3200 2018 solutions

1. C 11. A 21. B
 2. D 12. D 22. D
 3. A 13. C 23. C
 4. C 14. C 24. B
 5. B 15. B 25. D
 6. A 16. C 26. C
 7. B 17. A 27. B
 8. A 18. C 28. A
 9. D 19. B 29. B
 10. B 20. D 30. A

#31. roots 1 (double), 4

$$y - mt = (0, 12)$$

32. → quartic
 → missed double root
 → opposite signs for roots

$$33. y = 2f(4(x-1)) - 3$$

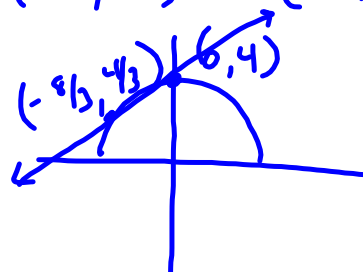
$$34. (x, y) \rightarrow (2x-4, -3y-1)$$

$$35. x \leq -3 \text{ or } x \geq -3$$

$$ii) y = -3 \pm \sqrt{-(x-1)}$$

36. intersection points

$$(0, 4) \text{ and } (-8/3, 4/3)$$



$$37. \frac{\pi}{6} + 2\pi n, n \in \mathbb{Z}$$

$$\frac{5\pi}{6} + 2\pi n, n \in \mathbb{Z}$$

$$38. 2\sqrt{2} - \sqrt{3}$$

39. (not on exam) Mapping Instead!

$$y = 4\cos(x - 60^\circ) + 2$$