1. The area of a right triangle is 6 and its side lengths are integers. What is its perimeter?

2. What is the square of 49 divided by 343?

3. How many prime numbers are less than 29?

4. What is the smallest positive root of *x*3 – 2*x*2 + *x* = 0?

5. If Jimmy rustles two piles of leaves per hour, how long does it take him to rustle 11 piles of leaves?

6. I’ve been traveling at 10 m/s for one minute. How far will I have traveled after 10 more seconds if I travel at the same rate?

7. How many minutes are in one standard day?

8. What is the length of the diagonal of a square with side length?

9. The square root of 39 lies between two consecutive integers, *a* and *b*. Find .

10. Evaluate: 13 – 31 + 131 – 3.

11. How triangles are formed by a square with all its diagonals drawn in?

12. Evaluate 123,456 – 54,321.

13. What is two thirds of three quarters of 80?

14. If *x* percent of *y* is 4, then what is *y* percent of *x*?

15. Define the operation : . Compute  .

16. Where do the lines *y*1 = 2*x* + 1 and *y*2 = –6*x* + 3 meet?

17. How many numbers are *between* one and one hundred?

18. What is the square of the cube of the square root of 4?

19. Evaluate (1 + (1 + (1 + (1 + (1 + (1 + (1 + (1 + (1 +1)))))))) – 1).

20. What is logically equivalent to “Not not not not not not not not not not not false”?

21. How many whole numbers less than 10 is 11235 divisible by?

22. What is the area of a circle with circumference 6?

23. Compute the average of 12, 51, and 84.

24. Compute the square root of one thousand twenty four.

25. Compute .

1. 12

2. 7

3. 9

4. 1

5. 5.5 hours

6. 700

7. 86,400

8. 1

9. 1

10. 110

11. 8

12. 69135

13. 40

14. 4

15. 24

16. (0.25, 1.5) OR (1/4, 3/2)

17. 98

18. 8

19. 9

20. true

21. 4

22. 9/π

23. 52

24. 32

25. 9.24