





2018 John O'Bryan Mathematical Competition  
Junior-Senior Individual Test

1. \_\_\_\_\_  $-6$  \_\_\_\_\_

11. \_\_\_\_\_  $387$  \_\_\_\_\_

2. \_\_\_\_\_  $\frac{mp}{m + pr}$  \_\_\_\_\_

12. \_\_\_\_\_  $14$  \_\_\_\_\_

3. \_\_\_\_\_  $(2,7)$  \_\_\_\_\_

Must be this ordered pair.

13. \_\_\_\_\_  $-1$  \_\_\_\_\_

4. \_\_\_\_\_  $(3,2)$  \_\_\_\_\_

Must be this ordered pair

14. \_\_\_\_\_  $\frac{3}{7}$  \_\_\_\_\_

Must be this reduced fraction.

5. \_\_\_\_\_  $110$  \_\_\_\_\_

(degrees optional)

15. \_\_\_\_\_  $\frac{k}{2w}$  \_\_\_\_\_

6. \_\_\_\_\_  $\frac{24}{25}$  \_\_\_\_\_

Must be this reduced fraction.

16. \_\_\_\_\_  $8\sqrt{11}$  \_\_\_\_\_

Must be exactly this answer.

7. \_\_\_\_\_  $\frac{15}{29}$  \_\_\_\_\_

Must be this reduced fraction.

17. \_\_\_\_\_  $1017$  \_\_\_\_\_

8. \_\_\_\_\_  $7$  \_\_\_\_\_

18. \_\_\_\_\_  $\frac{14}{5}$  \_\_\_\_\_

Must be this reduced fraction.

9. \_\_\_\_\_  $8073$  \_\_\_\_\_

19. \_\_\_\_\_  $18$  \_\_\_\_\_

10. \_\_\_\_\_  $-\frac{15}{17} - \frac{9}{17}i$  \_\_\_\_\_

Must be exactly this answer.

20. \_\_\_\_\_  $30\sqrt{2}$  \_\_\_\_\_

Must be exactly this answer.