



Algebra 2 (Honors) 3641

Readiness Assessment Test

Thank you for considering this course for your student. Here are some tips for success in the Readiness Assessment process.

- Please do not provide your student this assessment or its contents until you are ready for him or her to complete it in a single sitting with no books, notes, or outside help. It is intended to be a spot check of retained knowledge and skill.
- Make sure you have the latest version of this assessment. Ideally, please download it and have your student complete it within one week prior to enrollment.
- Completed Readiness Assessment materials for a course should be submitted immediately after you enroll in the course.
- **Readiness Assessment materials must be submitted by uploading from the Family Account in the Enrolled Courses view.** Readiness Assessment materials are not accepted through email.
- Visit Live Chat, or email TPS Support (support@pottersschool.org) for questions or assistance.

Part I: Academic Background (to be completed by the parent)

Age/Grade

1. How old will your student be as of **October 1st** of the academic enrollment year?
2. What grade will your student be in **at the start of this course**?

Related Coursework

1. Please provide the title of the most recently completed (or in-progress) **Algebra and Geometry** courses:

Algebra Course Information

- a. What is the student's in-progress or final course grade (numeric grade if available)?
- b. What is the name of the course provider (e.g., online provider, taught at home, local college)?
- c. What is the name of the course curriculum (title and name of publisher of primary text if known)?
- d. Is the student on-track to complete the entire course/curriculum by the end of the current year (if in-progress)?
- e. How is the course evaluated? Is the work self-checked, parent-checked, or evaluated outside the home?
- f. What percentage (if any) of the student's grade is based on assessments that are completed without access to notes or outside resources and completed in a single sitting without the opportunity for rework to improve the grade?

Geometry Course Information

- a. What is the student's in-progress or final course grade (numeric grade if available)?
- b. What is the name of the course provider (e.g., online provider, taught at home, local college)?
- c. What is the name of the course curriculum (title and name of publisher of primary text if known)?
- d. Is the student on-track to complete the entire course/curriculum by the end of the current year (if in-progress)?
- e. How is the course evaluated? Is the work self-checked, parent-checked, or evaluated outside the home?
- f. What percentage (if any) of the student's grade is based on assessments that are completed without access to notes or outside resources and completed in a single sitting without the opportunity for rework to improve the grade?

Additional Background

1. Is your student's first language English or a different language? If different, what is his or her language background? (**Note:** Most TPS classes are designed for native English speakers, but we also provide support at several levels for students whose first language is not English.)
2. Is there additional information that might help us better know your student and understand his or her unique abilities and needs for the best course placement and academic outcome?

Part II: Readiness Test (to be completed by the student)

- This readiness test is to be taken **without** notes or outside help.
- A scientific or graphing calculator **may** be used.
- Please answer questions 1 – 30.
- If you have never seen a concept before, please write “Guess” and then do your best job of guessing. If you want to add additional information, you are more than welcome to.

Example: 1) A
 2) B
 3) C (guess)
 4) etc.

- ____ 1. Which expression is equivalent to $x^2 - 9$
 a) $(x - 3)^2$ b) $(x + 3)^2$ c) $x(x - 3)$ d) $(3 + x)(x - 3)$

- ____ 2. A musician transposed his music down an octave as shown below. What geometric transformation does this transposition exhibit?



- a) translation b) rotation c) reflection d) size transformation

- ____ 3. Expand $(3x + 4)(-x^2 - 2)$
 a) $3x^3 + 4x^2 + 6x + 8$ b) $-3x^3 - 8$
 c) $-3x^3 - 4x^2 - 6x - 8$ d) $3x^3 - 4x^2 + 6x - 8$

- ____ 4. What is the equation of a line with slope 2 that passes through the point (5, 1)?
 a) $y = -2x + 6$ b) $y = 2x - 9$ c) $y = -2x + 1$ d) $y = 2x + 9$

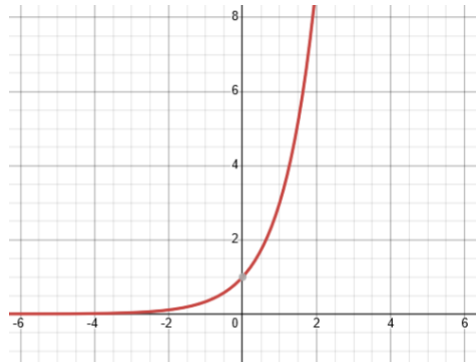
- ____ 5. Simplify $\frac{\frac{12 a^5 b^2}{18 c^3}}{\frac{9 a^4}{20 b^2 c^6}}$

- a) $\frac{5abc^2}{3}$ b) $\frac{40 ab^4 c^3}{27}$ c) $\frac{27 abc}{40}$ d) $\frac{27}{40 a b^4 c^3}$

- ___ 6. Which is *not* a related fact of the equation $x + 3 = -8$
- a) $x + 8 = -3$ b) $3 = -8 - x$ c) $x = -8 - 3$ d) $3 - x = -8$

- ___ 7. Simplify $(-3x^2y)(-2xy^3)^2$
- a) $-12x^4y^6$ b) $-12x^4y^7$ c) $-6x^3y^7$ d) $-6x^3y^4$

- ___ 8. Choose the equation whose graph is shown.

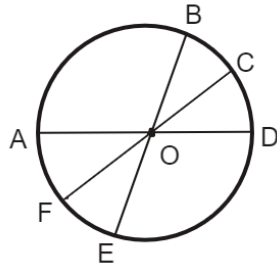


- a) $y = 3x + 1$ b) $y = -3^x$ c) $y = 3^x$ d) $y = 3(3^x)$
- ___ 9. Solve $-9x^2 = -36$
- a) -4 b) 2 c) ± 4 d) ± 2
- ___ 10. Use the Quadratic Formula to solve the equation $x^2 + 7x + 1 = 0$
- a) $x = \frac{7 \pm 3\sqrt{5}}{2}$ b) $x = \frac{-7 \pm 3\sqrt{5}}{2}$ c) $x = \frac{-7 \pm \sqrt{53}}{2}$ d) $x = \frac{7 \pm \sqrt{53}}{2}$
- ___ 11. Suppose M is the midpoint of line segment AB. If $A = (-3, 7)$ and $M = (-5, 11)$ find the coordinates of B.
- a) $(-4, 9)$ b) $(-7, 15)$ c) $(11, 15)$ d) $(-11, 9)$
- ___ 12. Simplify $\sqrt{98a^4b^7}$
- a) $7a^2b^2\sqrt{2b}$ b) $98a^2b^2\sqrt{b}$ c) $2a^2b^3\sqrt{7b}$ d) $7a^2b^3\sqrt{2b}$
- ___ 13. Solve the inequality $-16 < 2 - 5x$
- a) $5 < x$ b) $5 > x$ c) $\frac{18}{5} > x$ d) $\frac{18}{5} < x$

___ 14. Which of the following could be the length of the third side of a triangle with two sides measuring 35 and 13 cm?

- a) 22 cm b) 40 cm c) 48 cm d) 50 cm

___ 15. It is given that \overline{AD} , \overline{FC} , and \overline{EB} are diameters of $\odot O$ shown. What justifies the conclusion that $\angle AOF \cong \angle DOC$?



- a) If a figure is a circle, then its radii are congruent.
 b) If a ray bisects an angle, then it divides the angle into two congruent angles.
 c) If angles are vertical angles, then they are congruent.
 d) Corresponding parts of congruent figures are congruent.

___ 16. Multiply $(x - 4)^2$
 a) $x^2 - 16$ b) $x^2 - 4$ c) $x^2 - 8x + 16$ d) $(2x - 8)$

___ 17. Simplify $-2(4 - y) - (2 - 3y)$
 a) $5y - 10$ b) $-4y - 10$ c) $-y - 10$ d) $-y + 6$

___ 18. Suppose this statement is true: If you get good grades then you will get into college. Which statement is the converse?

- a) If you get into college then you received good grades.
 b) If you don't get good grades then you don't get into college.
 c) If you don't get into college then you did not get good grades.
 d) If you get good grades then you don't get into college.

___ 19. What is the slope of the line that passes through the points $(-3, 5)$ and $(7, -4)$.
 a) $\frac{9}{-10}$ b) $\frac{9}{10}$ c) $\frac{-10}{9}$ d) $\frac{10}{9}$

____ 20. Identify the antecedent (or hypothesis) in the following sentence.

If Vera lives in Seattle, then she lives in Washington.

- a) she lives in Washington b) Vera lives in Seattle
b) Vera d) Seattle, Washington

____ 21. Between what two consecutive integers is $\sqrt{170}$?

- a) 12 and 13 b) 15 and 16 c) 13 and 14 d) 10 and 11

____ 22. A building casts a 14 ft shadow. At the same time a 6 ft statue casts a 4.2 ft. shadow. How tall is the building?

- a) 11.2 ft b) 20 ft c) 8.75 ft d) 24.85 ft

____ 23. Thomas wants to buy a \$565 tablet. Thomas has no money saved, but will be able to deposit \$30 into a savings account when he receives his paycheck on Friday. However, before Thomas can buy the tablet, he must give his sister Julia \$65 that he owes her. For how many weeks will Thomas need to deposit money into his savings account before he can pay back Julia and purchase the tablet?

- a) 25 weeks b) 19 weeks c) 22 weeks d) 21 weeks

____ 24. Solve the proportion.

$$\frac{z+14}{4z+6} = \frac{3}{4}$$

- a) $\frac{8}{19}$ b) $\frac{15}{28}$ c) $\frac{19}{4}$ d) $\frac{2}{7}$

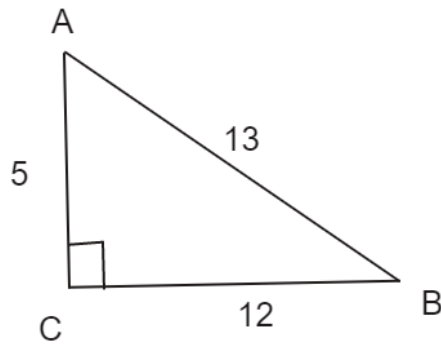
____ 25. Which do you calculate first when simplifying $7 + 3(10 + 5 \cdot 4^2)$

- a) $7 + 3$ b) $10 + 5$ c) $10 + 3$ d) 4^2

____ 26. Solve the equation $12x^2 - 34x + 26 = 40x^2 - 64$

- a) $\frac{5}{3}, \frac{9}{2}$ b) $\frac{-5}{2}, \frac{9}{7}$ c) $-\frac{5}{2}, -\frac{9}{7}$ d) $-\frac{5}{3}, \frac{9}{2}$

___ 27. Write the ratios for $\sin A$ and $\cos A$.



- a) $\sin A = \frac{12}{13}$, $\cos A = \frac{5}{13}$ b) $\sin A = \frac{5}{13}$, $\cos A = \frac{12}{13}$
c) $\sin A = \frac{12}{5}$, $\cos A = \frac{5}{12}$ d) $\sin A = \frac{5}{12}$, $\cos A = \frac{12}{13}$

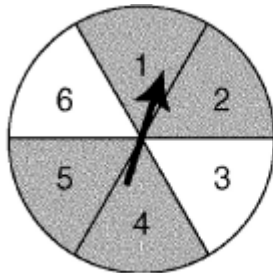
___ 28. The time t required to drive a certain distance varies inversely with the speed r . If it takes 2 hours to drive the distance at 30 miles per hour, how long will it take to drive the same distance at 50 miles per hour?

- a) 60 hours b) 1.2 hours c) 150 hours d) about 3.33 hours

___ 29. You roll a standard number cube. Find $P(\text{number greater 2})$

- a) $\frac{6}{5}$ b) $\frac{5}{6}$ c) $\frac{2}{3}$ d) $\frac{3}{2}$

___ 30. Find $P(\text{even and not shaded})$



- a) $\frac{1}{6}$ b) $\frac{1}{3}$ c) 0 d) $\frac{5}{6}$