



Chemistry (Honors) 3234

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) course in the same subject area or related subject area that might help assess academic readiness for this course (Algebra 1 or higher course detail preferred if available):

Course Name:

- 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)

A calculator is permitted. No other outside resources may be used.

1. $(5 \times 10^7)(8.99 \times 10^{-6})(4.2 \times 10^4) =$

- A. 1.89×10^7
- B. 1.89×10^5
- C. 1.89×10^{-4}
- D. 1.89×10^{-168}

2. $(2.78 \times 10^{-5}) + (6.51 \times 10^{-6})$

- A. 3.43×10^{-11}
- B. 9.29×10^{-5}
- C. 3.43×10^{-5}
- D. 9.29×10^{-6}

3. Simplify $\frac{x^2y}{xyz}$

- A. $\frac{x}{z}$
- B. xz
- C. x^3y^2z
- D. $\frac{x^2}{z}$

4. Simplify $\frac{a^{18}b^6}{(a^3)^4b^5}$

- A. a^6/b^{14}
- B. a^6b
- C. $a^{11}b$
- D. $a^{30}b^{11}$

5. The same brand of cereal comes in four different size boxes. Which size is the best deal?

Size	Cost
15 oz	\$2.39
18 oz	\$2.89
24 oz	\$3.79
32 oz	\$5.10

- A. 15 oz
 - B. 18 oz
 - C. 24 oz
 - D. 32 oz
6. In a certain classroom, the ratio of girls to boys is 7 to 4. If there are 35 girls in the class, then how many total students are there?
- A. 20
 - B. 55
 - C. 39
 - D. 12
7. The ratio of red marbles to blue marbles is 5 to 7. If there are 156 marbles total, how many red marbles are there?
- A. 111
 - B. 218
 - C. 91
 - D. 65

The table below is printed on the side of a box of pancake mix:

Pancakes	Amount of mix	Amount of water
6	1 cup	$\frac{3}{4}$ cup
12	2 cups	$1\frac{1}{2}$ cups
18	3 cups	$2\frac{1}{4}$ cups

8. What quantities of mix and water should be used if we want to make 100 pancakes?
- A. $16\frac{2}{3}$ cups mix, 20 cups water
 - B. $16\frac{2}{3}$ cups mix, $12\frac{1}{2}$ cups water
 - C. 15 cups mix, $11\frac{1}{4}$ cups water
 - D. 15 cups mix, $16\frac{2}{3}$ cups water
9. Solve $\frac{1}{x-6} = \frac{3}{12x}$
- A. -2
 - B. $-\frac{3}{2}$
 - C. $-\frac{6}{5}$
 - D. 10
10. A roll of Christmas gift wrap is 2.5 meters long. What is the length of the paper in mm?
- A. 250 mm
 - B. 2500 mm
 - C. 25 mm
 - D. 0.0025 mm
11. Lizzie wants to create a raised vegetable garden in her back yard. She built a square frame that is 3.5 m on each side and wants to make a scaled drawing of the garden. If her drawing has a scale of 50:1, how long will one side of the framed garden in her sketch be?
- A. 17.5 cm
 - B. 7 cm
 - C. 1 m
 - D. 175 m
12. The exchange rate this week is 1 dollar for .85 euros. If I exchange 75 dollars, how many euros will I receive?
- A. 88.24 €
 - B. 63.75 €
 - C. 88.23 €
 - D. 63 €

13. Given that: 1 mi = 1.61x10³ m, 1 day = 24 hr, 1 hr = 60 min 1 min = 60 sec, and 1 yr = 365 days, Convert 55 miles/hour to meters/second (m/s).

- A. 25 m/s
- B. 20 m/s
- C. 88550 m/s
- D. 123 m/s

14. What are the units for ΔG ?

$$\Delta G = -92.22 \frac{\text{kJ}}{\text{mol}} - (773.15 \text{ K}) \times \left(-0.19875 \frac{\text{kJ}}{\text{mol} \cdot \text{K}} \right)$$

- A. kJ
- B. kJ/mol
- C. mol*K
- D. K

15. What is 5 percent of 12?

- A. 6
- B. 0.5
- C. 0.6
- D. 0.42

16. Joe has sold 45 candy bars to raise money for a school trip. If he has reached 75% of his goal, how many more candy bars does he need to sell to reach his goal?

- A. 60
- B. 15
- C. 34
- D. 30

17. Find the percent decrease from 9 to 6.3.

- A. 2.7%
- B. 30%
- C. 43%
- D. 70%

18. In simplest form, what do you get when you divide 81/21 by 27/49?

- A. 1/7
- B. 72/343
- C. 343/72
- D. 7

19. Given: $PV = nRT$; solve for "R"

- A. $R = PV / nT$
- B. $R = nT / PV$
- C. $R = PV - nT$
- D. $R = PVnT$

20. Given: $p = m / v$ solve for "m"

- A. $m = p / v$
- B. $m = v / p$
- C. $m = p - v$
- D. $m = pv$

21. Given $E = hf$ and $c = f\lambda$, Which of the following equations is correct?

- A. $h = f/E$
- B. $E = hc/\lambda$
- C. $f = c\lambda$
- D. $f = hE$

22. Find the greatest common factor of $3x^2y^3$ and $45x^5y^2$.

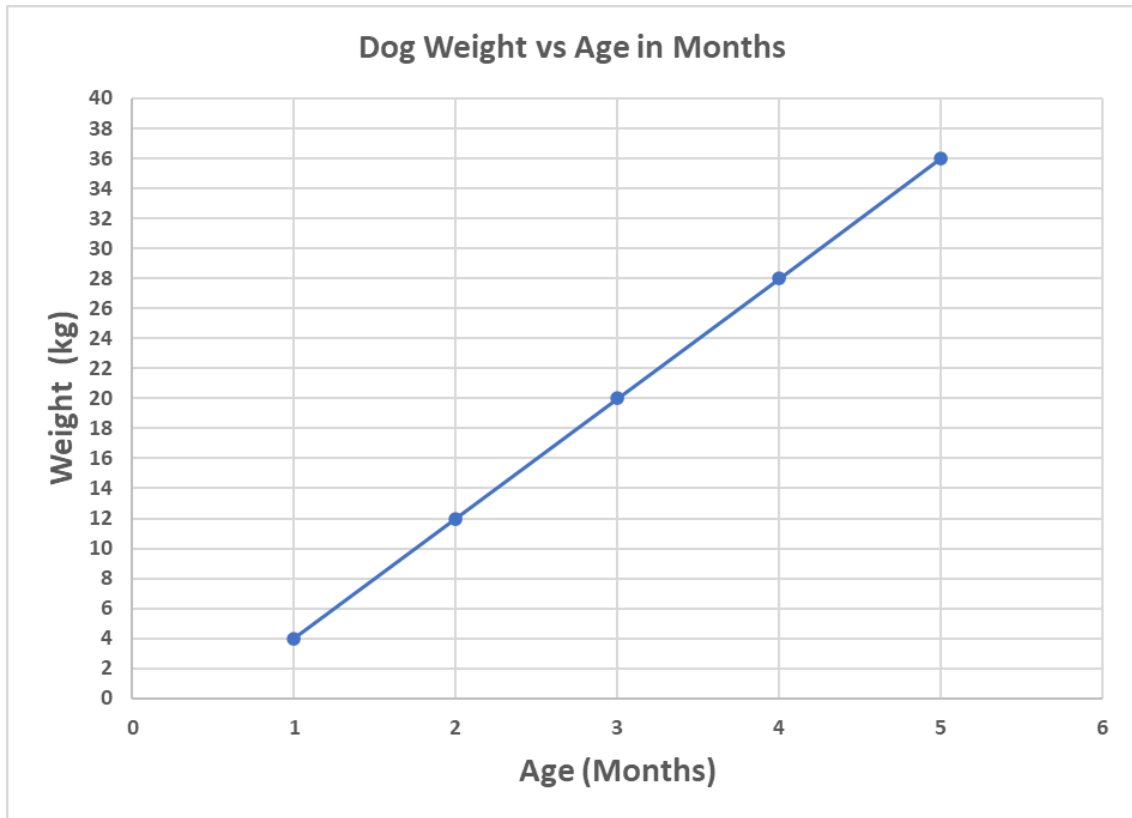
- A. $3x^2y^2$
- B. $3x^2y^3$
- C. $15x^2y^2$
- D. $15x^2y^3$

23. Solve for x: $10x + 15 < 25 + 5x$

- A. $x > -2$
- B. $x < -2$
- C. $x > 2$
- D. $x < 2$

24. Solve for x: $-2x - 10 < 2$

- A. $x > -6$
- B. $x < -6$
- C. $x > 6$
- D. $x < 6$



25. What is a dog's average rate of growth during its first 5 months of life based on the model shown above?