Entrance Exam Preparation - Eighth Grade

Expected time for testing: 2 hours
(Higher-level math students may take longer)

Subject	Assessment Content	Approx. Time
Math	Mastery of Math Facts test: Addition, subtraction, multiplication & division (two minutes for each test)	10 minutes
	Math Concepts test: Four-digit addition and subtraction, decimals, long-division, fractions, rounding, algebra 1, geometry, square root, Pythagorean Theorem	20 – 30 minutes (depending on level being assessed)
Reading & Comprehension	Reading and comprehension (3 tests, 3 minutes per story): Read 3 short stories and answer questions in multiple-choice format	10 minutes
Spelling	Spelling test	10 minutes
Grammar	Grammar test: Identifying parts of speech: verb, noun, pronoun, adverb, adjective, conjunction, preposition, plurals, articles; Dissecting sentences: identify subjects, verbs and modifiers; Showing understanding of capitalization, punctuation and use of synonyms, antonyms, homonyms and homophones	No time limit (most students complete within 20 minutes)
Writing	Composition: Student is required to write a paragraph or more in cursive on a topic of his/her choice.	10 minutes

AMERICAN HERITAGE

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Intake Academic Assessment Summary

Student Name _____ Age_____ Grade Level (Current) _____ Date_____

Teacher Conducting Assessment _____ Administration Review_____

Subject Assessed	Time Allocation	Score	Notes
Math Facts			
Addition			
Subtraction			
Multiplication			
Division			
Math Concepts			
Reading Comprehension			
Word Decoding			
Spelling			
Orthography			
Composition			

Recommendations: _____

_____

_____

_____

Note to Parents: The results of this Intake Academic Assessment are based upon performance standards and expectations of American Heritage School students for the age or grade level indicated above. This assessment is intended to measure current performance only and is used as one of various considerations in the School's intake process to make admission and grade level placement decisions. Thank you for your interest in American Heritage School. Our mission is to serve you in developing the hearts, minds, and bodies of your children as we strive together to magnify the divine potential of students and families.

Use a ratio box to solve Problems 1 to 3.

1. The regular price was $21.00, but the item was on sale for 25% off. What was the sale price?

2. If 24 pounds of seed cost $41.00, how much would 42 pounds cost at the same rate?

3. An item was on sale for 25% off the regular price. If the sale price was $21.00, what was the regular price?

4. Ten billion is how much greater than eight hundred million? Write the answer in scientific notation.

5. The median of these numbers is how much less than the mean?

$$2.0, 0.6, 0.7, 0.85, 5.3$$

6. What is the probability of having a coin turn up heads, heads, tails, tails on 4 consecutive tosses?

7. What percent of $30 is $7.50? Write an equation.

8. Minh left $4000 in an account that paid 7% simple interest annually. How much interest was earned in 2 years?

9. The points $(3, 0)$, $(3, -4)$, and $(0, -4)$ are the vertices of a triangle. Find the area of the triangle.

10. Use two unit multipliers to convert 6 yd^2 to square feet.

11. If Jan walks from point A to point B to point C she walks 35 yards. How many yards would she save by taking the shortcut from point A to point C?
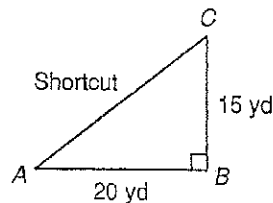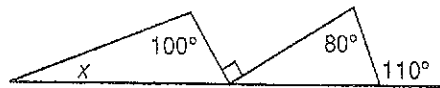

12. Find the volume of the cone. The diameter of the base is 20 inches and the height is 15 inches. Use 3.14 for π.
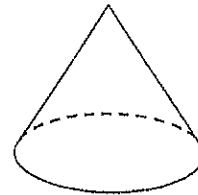
13. Make a table that shows 3 pairs of numbers for the function $y = -x - 1$. Then graph the number pairs on a coordinate plane and draw a line through the points to show other number pairs of the function.

14. Use the formula $A = \frac{1}{2}bh$ to find h when $A = 20$ and $b = 5$.

15. Find $m\angle x$.

Solve and check. Show all steps.

16. $2\frac{2}{3}y + 13 = 37$

17. $\dfrac{2.5}{a} = \dfrac{15}{21}$

Add, subtract, multiply, or divide, as indicated:

18. $1.5 \text{ km} - 720 \text{ m} = \underline{\hspace{1cm}} \text{ m}$

19. $2\frac{2}{3} + \left(6 \div 2\frac{1}{2}\right)$

20. $\dfrac{(-7) + (-3) + (-2)(-3)}{(-3) - (-2)}$

Math 87 by Hake & Saxon

The city of Venice in Italy is built on thousands of tiny islands. They are connected by a network of bridges. Because all the streets are water, all the vehicles in Venice are boats. The Grand Canal, the main thoroughfare, is as wide as a highway and full of floating traffic. The Ponte di Rialto spans across it. Along this ancient bridge are shops. Merchants have sold trinkets and treasures here for hundreds of years. Another bridge, built between a courthouse and a jail, is called the Bridge of Sighs. Here, prisoners condemned to death caught their last glimpse of their beautiful city.

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1. **Venice is**   Ⓐ an Italian island   Ⓑ a network of highways   Ⓒ an inland city   Ⓓ built on thousands of islands
2. **To get around Venice, you must**   Ⓐ take a train   Ⓑ take a motorcycle   Ⓒ take a boat   Ⓓ bicycle
3. **The main waterway in the city is**   Ⓐ never crowded   Ⓑ wide and busy   Ⓒ called the Ponte di Rialto   Ⓓ full of treasures
4. **The Ponte di Rialto**   Ⓐ is a body of water   Ⓑ is a very old bridge   Ⓒ spans a highway   Ⓓ is a boat
5. **On the Ponte di Rialto, you can buy**   Ⓐ boats   Ⓑ pizza   Ⓒ trinkets   Ⓓ signs
6. **The other bridge mentioned**   Ⓐ is also on the Grand Canal   Ⓑ is called the Bridge of Unhappiness   Ⓒ has merchants and shops   Ⓓ is built between a courthouse and a jail
7. **It's called the Bridge of Sighs because**   Ⓐ of the sorrow of those who crossed it   Ⓑ that's the sound the water makes   Ⓒ no one likes it   Ⓓ it is so old
8. **To get to school, children in Venice probably**   Ⓐ span the canal   Ⓑ take a school boat   Ⓒ go on the main thoroughfare   Ⓓ go on the Ponte di Rialto

No. right	1	2	3	4	5	6	7	8
G score	3.3	3.8	4.6	5.5	6.3	7.3	8.2	9.5

1. **Improper and uncomfortable seating arrangements** in classrooms probably cause a large number of inattention and hyperactivity problems. The chair should be *ergonomically* correct to support the child's back and general posture. Schools should give as much attention to the physical needs of children in a classroom as large corporations do for their employees. This is for productivity, comfort and safety.

2. **Though sitting and lounging about on the floor, or in beanbag chairs, bathtubs, etc.,** has become quite popular in some classrooms, we do not think it affords the comfort or physical ease needed for accurate writing and spelling. The sketches below show correct seating for this method to work as prescribed.

B. **Prepare to teach letter strokes beginning in the next section.**

1. **Have students clear all materials from the desk top** except name tag, dotted-line paper and a No. 2, six-sided, black lead pencil.

2. **Desks are already adjusted for proper height for each student's feet to be flat on the floor,** spines straight against the back rest, head held high and arm position as shown in the pictures below for left and right-handed students.

   a. **A student's head should not be allowed to fall forward** because this causes strain on the back and neck muscles.

   b. **Both arms should rest comfortably on the desk;** elbows should be just off the edge.

   c. **The body should not touch the front edge of the desk.** This causes a tendency to lean on the desk, which places strain on the neck and shoulder muscles.

| Left-handed writing and sitting position | Right-handed writing and sitting position |

Directions: Trace and repeat the patterns below.

llll _____ eeee _____

iiii _____ oooo _____

rrr _____ s s s _____

mmmm _____

Directions: Copy the letters in the space provided.

A _____ B _____ C _____ D _____ E _____

F _____ G _____ H _____ I _____ J _____

K _____ L _____ M _____ N _____ O _____

P _____ Q _____ R _____ S _____ T _____

U _____ V _____ W _____ X _____

Y _____ Z _____

a _____ b _____ c _____ d _____ e _____

f _____ g _____ h _____ i _____ j _____

k _____ l _____ m _____ n _____ o _____

p _____ q _____ r _____ s _____ t _____

Directions: Trace and repeat the patterns below.

llll _____

eeee _____

iiii _____

mmm _____

oooo _____

rrr _____

sss _____

Directions: Copy the letters in the space provided.

a _____ *b* _____ *c* _____ *d* _____ *e* _____

f _____ *g* _____ *h* _____ *i* _____ *j* _____

k _____ *l* _____ *m* _____ *n* _____

o _____ *p* _____ *q* _____ *r* _____ *s* _____

t _____ *u* _____ *v* _____ *w* _____

x _____ *y* _____ *z* _____

Practice Sheet

Aa   Bb

Cc   Dd

Ee   Ff

Gg   Hh

Ii   Jj

Kk   Ll

Mm   Nn

Oo   Pp

Qq   Rr

Ss   Tt

Uu   Vv

Ww   Xx

Yy   Zz

u _____ *v* _____ *w* _____ *x* _____

y _____ *z* _____

Directions: Copy the following quote on the lines provided. The prophet Heber J. Grant was fond of this saying.

"That which we persist in doing becomes easier for us to do, not that the nature of the thing itself is changed, but our power to do is increased."
— Ralph Waldo Emerson