

2015 NEBRASKA MATHEMATICS STYLE GUIDE

All general guidelines in the universal design style guide are also applicable.

ANSWER CHOICES

- When options are complete sentences, they should begin with a capital letter and end with appropriate punctuation.
- Responses should be arranged in ascending order, as ordered in an accompanying graphic, alphabetical order, or by length (from shortest to longest or longest to shortest, but avoid funneling to key).
- All types of answer options are left-aligned (i.e. decimals, fractions, mixed numbers, etc.).

EMPHASIS WORDS

- Use boldface to emphasize words such as: **approximately, best, closest, fewest, greatest, highest, least, least likely, lowest, most, most likely, except, and not** [but avoid using negative phrasing in stems]. *Note: the words listed as examples are not boldfaced every time they are in text, and other words and phrases may be boldfaced for emphasis on an item-by-item basis.*

INSTRUCTIONS

- Boldface instructions for items with a graphic in the stem.
- Specify type of graphic in introductory statement, such as chart, figure, graph, number line, picture, table, coordinate grid, etc.

Use the _____ below to answer the question.

WRITING NUMBERS

Use numerals for all numbers **except**:

- 1) at the beginning of a sentence.
Seven babies were born last week.
- 2) in verbal text where the number is not used to solve the problem. (Spell out *one* through *nine* when not used in computation.)
The two figures below are similar.

Note: Round or approximate numbers may combine numerals and words (units). In a list or in the answer choices, left align the units.

16 million people

3 billion dollars

- 3) in combination with another numeral.
four 32-cent stamps

Large Numbers

Use commas to separate into periods.

2,645 16,287,153

*Use commas, when words are used to indicate large numbers.

Three million, two hundred thousand, five

Note: Avoid beginning a sentence with a number; if necessary, write out number.

*Decimals

*Show 0 in ones place for decimal numbers less than one.

0.56

Fractions and Mixed Numbers

Use horizontal bar, not diagonal. (graphic)

(correct) $\frac{1}{2}$ (incorrect) $\frac{1}{2}$

Extend bar when needed.

$\frac{x + y + z}{12}$

Write mixed numbers without a space between the integer and the fraction.

$2\frac{1}{2}$ (fraction is graphic)

Hyphenate fractions that are spelled out.

two-thirds

Negative Numbers

Write sign and number such that they don't touch (*use en-dash for negative sign*).

- 6 - 4.6

ALGEBRA

Unknown Numbers (Variables)

Variables should be italicized in equations, expressions, formulas, etc.

$x = 2y + 6$ $y = x^3 + 4$

Equations, expressions, etc. are centered beneath the stem or are included within the stem at the appropriate place. If centered beneath the stem, there should be an extra space above and below the equation or expression.

Formulas

Item defined is uppercase, while the other terms are lowercase.

$A = lw$ $A = \frac{1}{2}bh$

No \$ signs are used when money is part of a formula.

$$C = 12.95 + 0.009m$$

Formulas are centered beneath the stem or are included within the stem at the appropriate place. If centered beneath the stem, there should be an extra space above and below the formula.

(Exception: In grades 3 and 4 in stacked addition or subtraction money problems, use a dollar sign before the top number.)

Square root

Extend symbol as needed:

$\sqrt{246}$	means the square root of 246
$\sqrt{2+3}$	means the square root of (2 + 3) or $\sqrt{5}$
$\sqrt{2} + 3$	means the square root of 2 added to 3
$\sqrt{2} + \sqrt{3}$	means the square root of 2 plus square root of 3
$\sqrt{a^2 + b^2}$	means the square root of the sum of a^2 and b^2

Ratio

When a ratio is written with a colon, a space is inserted before and after the colon.

$$9 : 5$$

MEASUREMENT

Unit and measure should appear on same line of text. Abbreviations are **not** followed by periods unless the period completes a sentence in the item choice.

(Exception: the abbreviation for inch is followed by a period).

132 ft	The distance they traveled was 27 km.
17 cm	
93 yd	
12 in.	

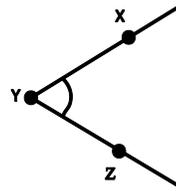
For clarity, write out the unit in text of stem the first time. Then, use the standard abbreviation thereafter and in accompanying graphics and answer options.

in text: 1 milliliter (mL) and in options/graphics: 1 mL

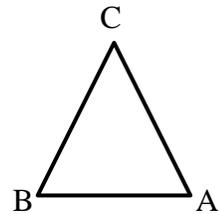
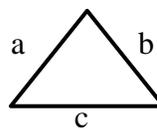
GEOMETRY

Naming Geometric Figures

lines:	\leftrightarrow line AB or \overleftrightarrow{AB}
line segments:	line segment AB or \overline{AB}
rays:	ray AB or \overrightarrow{AB}
angles:	with a capital letter $\angle Y$ or $\angle XYZ$



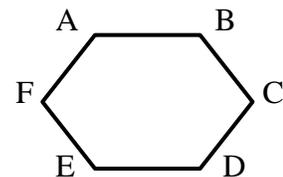
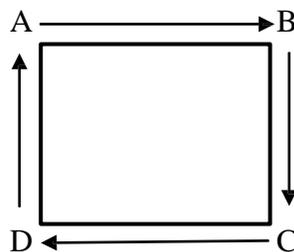
triangles: Label sides using either lowercase letters (a, b, c) or segment (AB, AC, BC, etc.). Triangles are named by vertices ($\triangle ABC$ or $\triangle CAB$ or $\triangle BCA$). Vertices are named by letters (A, B, C)



Do not italicize the labels for sides or vertices of a triangle. Do italicize any formula in an item that may be derived from the triangle.

Other Polygons and Labeling Graphics in General

Name/number points in order (clockwise) starting at any vertex or from L→R (e.g., on maps, diagrams).



Coordinates

Enclose in parentheses, separate with a comma and one space:

(6, 4)

(- 3, - 1)

ALIGNMENT

All types of answer options are left-aligned (i.e., decimals, fractions, mixed numbers, etc.).

Horizontal List of Numbers

In math, horizontal lists are centered. Insert a comma and three spaces between each number.

4, 7, 112

(Exception: When using 4-digit and larger numbers, exclude the comma that separates the numbers.)

*List using 4-digit and larger numbers include the comma and separate the numbers with a semi-colon

1,247; 2,349; 4,601

Bulleted Lists

Left align bulleted lists.

- First
- Second
- Third
- Fourth

Spacing

Use 1 space before and after operational signs.

6 + 2

Use 1 space before and after equal signs.

2 + 3 = 5

Use no spaces between parentheses and numbers inside parentheses.

(24 + 32)

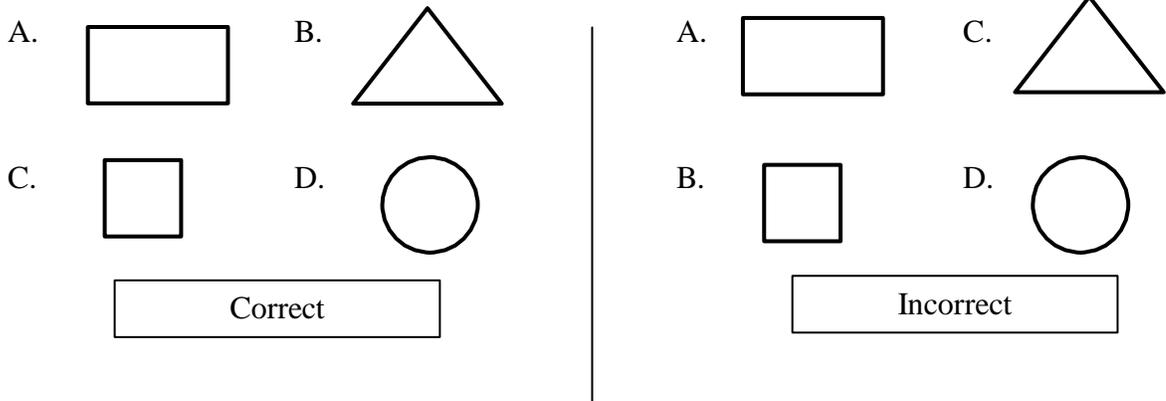
*Use parentheses around intergers with signs when adding or subtracting.

(+7) - (-2)

Use no space between a numeral and π .

FORMAT OF ANSWER CHOICES

When responses involve selecting an appropriate graphic, answer choices are arranged:



GRAPHICS

Put a title, in bold, on all mathematics graphics.

Tables

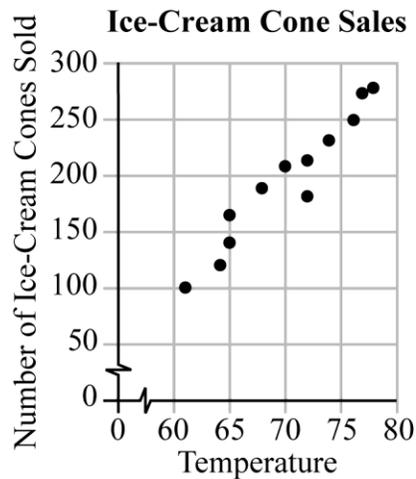
Title and headers are bold.

Text in tables is left justified.

Numbers in tables are centered.

1. Scatter Plot draw-use graph paper

Axes are labeled in Times New Roman, initial cap, **no** boldface; labels include units.



2. Stem-and-Leaf Plot - draw

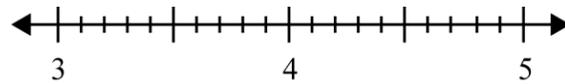
Ages of Teachers

3	1	6	6	9		
4	7	7	8	9		
5	0	3	4	4	4	7

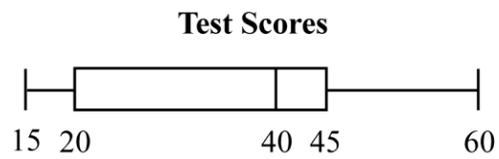
Key: 4 | 5 = 45

3. Number Lines- draw

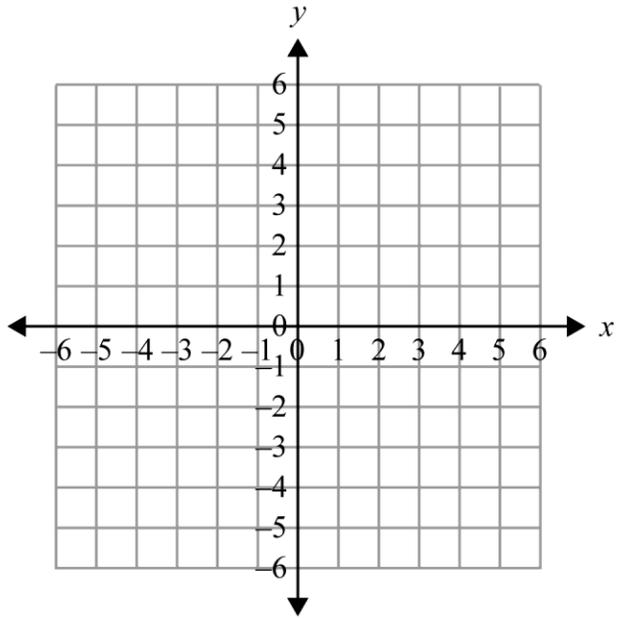
Scale used for each number line is determined by grade.



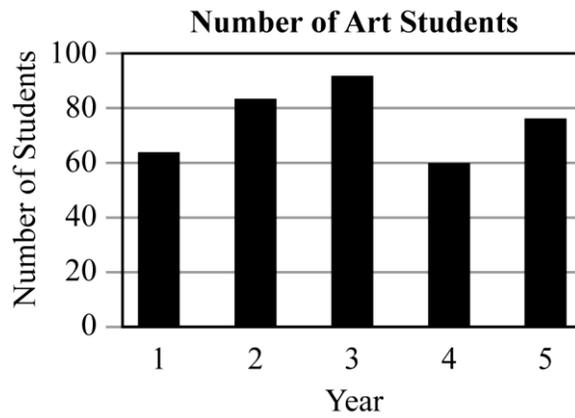
4. Box-and-Whisker Plot- draw



5. Coordinate Grid (4 quadrants) – draw- use graph paper
Label the *x*- and *y*-axes with italics.
Title graph in bold.

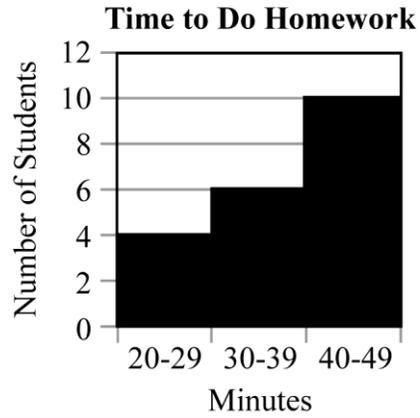


6. Bar Graph- draw
Axes are labeled in Times New Roman, initial cap, **no** boldface; labels include units.



7. Histogram- draw

Axes are labeled in Times New Roman, initial cap, **no** boldface; labels include units.



8. Pictograph- draw

Points Earned

Student	Number of Points
Dan	★ ★ ★ ★
Lisa	★ ★ ★
Mark	★ ★ ★ ★ ★
Sally	★ ★

Key: ★ = 2 points