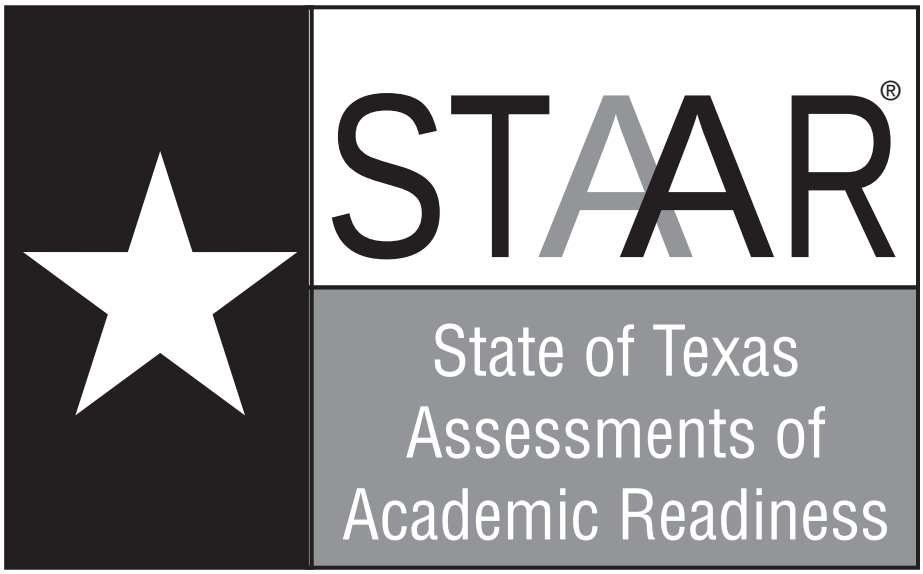

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MATHEMATICS

DIRECTIONS

Read each question carefully. For a multiple-choice question, determine the best answer to the question from the four answer choices provided. For a griddable question, determine the best answer to the question. Then fill in the answer on your answer document.

1 Which list shows the temperatures in order from coldest to warmest in degrees Fahrenheit?

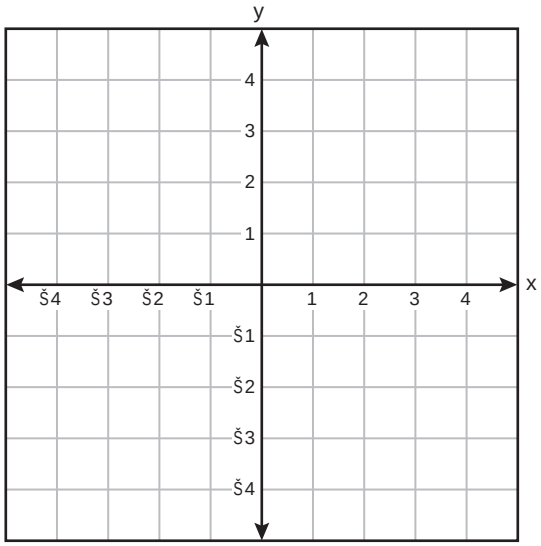
A 10°F 8°F 5°F 0°F

B 5°F 10°F 0°F 8°F

C 10°F 5°F 0°F 8°F

D 0°F 5°F 8°F 10°F

2 A coordinate grid is shown below.



Which ordered pair describes a point that is located 4 units to the left of the origin and 2 units below the x-axis?

F (4, 2)

G (4, 2)

H (4, 2)

J (4, 2)

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3 A housepainter mixed 5 gal of blue paint with every 9 gal of yellow paint in order to make a green paint. Which ratio of gallons of blue paint to gallons of yellow paint will make the same shade of green paint?

A 30 : 54

B 6 : 10

C 10 : 45

D 27 : 15

5 What value of x makes this equation true?

$$90 = 100 + x$$

A 10

B 10

C 190

D 190

---

6 A team of workers took 167.3 hours to complete a task. A smaller team of workers will complete the same task, but it will take them 1.25 times as long as it took the first team.

Based on this information, which statement is true?

F The task will take the smaller team of workers 168.55 hours to complete, because $167.3 + 1.25 = 168.55$.

G The task will take the smaller team of workers 179.8 hours to complete, because $167.3 + 1.25 = 179.8$.

H The task will take the smaller team of workers 198.825 hours to complete, because $167.3 \times 1.25 = 198.825$.

J The task will take the smaller team of workers 209.125 hours to complete, because $167.3 \times 1.25 = 209.125$.

12 Mr. Lloyd wants to buy a new television, but he does not have enough money in his bank account to pay for one. Which of these is NOT an option for Mr. Lloyd?

F He can use his credit card to buy the television now.

G He can save money and pay cash for the television at a later date.

H He can use his debit card to buy the television now.

J He can save money and use his debit card to buy the television at a later date.

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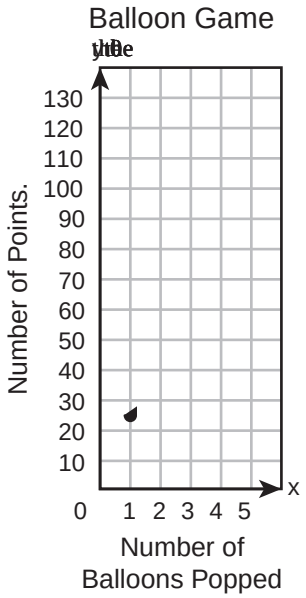
13 The graph shows the number of points, y, a player earns in a balloon game based on the number of balloons the player pops, x.



16 Which expression is equivalent to $y - 48$?

18 Dana placed the

19 Which statement about 3 multiplied by $\frac{2}{3}$ must be true?

A The product is between 3 and 4.

B The product is less than $\frac{2}{3}$.

C The product is between $\frac{}{3}$ and 3.

D The product is greater than 4.

---

20 Elida will use six different wires for a science project. The fractions represent the diameters of these wires in inches.

Which list shows the diameters of the wires in order from least to greatest?

F

G

H

J

21 Mr. Gonzales showed students part of the prime factorization of 90. One

$2 \cdot 3^2 \cdot __$

23 Yvonne is researching the effect of education on annual income. A summary of her research is shown in the table.

Effect of Education on Annual Income

Level of Education	Annual Income (dollars)
High school diploma	33,904
Associate•s degree	40,820
Bachelor•s degree	55,432

Based on the data in the table, how much more does a person with an associate•s degree earn than a person with only a high school diploma over 10 years?

A $6,916

B $74,724

C $747,240

D $69,160

---

24 The list shows the number of viewers of an online music video each day for 5 consecutive days.

5 35 245 1,715 12,005

By what factor did the number of viewers change each day from the first day to the fifth day?

F 7

G 12,000

H 2,401

J 30

29 In Austin, Texas, 8 bats ate 40 grams of insects in one night. At this rate, how many grams of insects could 64 bats eat in one night?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

---

30 Which expression is equivalent to $30 \div (3 + x)$?

F $(3 + x) \div 30$

G $30 \div (x + 3)$

H $(3 \div 30) + x$

J $30 \div 3 + 30 \div x$

---

31 Saritha will construct a rectangle that has a height of 4 units and an area of up to 48 square units. Which inequality represents all the possible lengths in units of the bases, b, that Saritha can use to construct this rectangle?

A $b \quad 44$

B $b \quad 52$

C $b \quad 12$

D $b \quad 192$

32 There are 90 girls and 60 boys in the sixth grade at a middle school. Of these students, 9 girls and 3 boys write left-handed. What percentage of the sixth graders at this middle school write left-handed?

F 10%

G 8%

H 5%

J 15%

---

33 The list shows the area in square feet of each apartment available for rent in a building.

565, 961, 867, 517, 627, 714, 517, 728

What is the range of these areas in square feet?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

---

34 Amy has 5 yd of border to put around a garden. She uses all the border to make four sections that are the same length. Which expression does NOT equal the length of one of these sections in yards?

F $4 \div 5$

G $4\overline{)5}$

H $\frac{5}{4}$

J $5 \div 4$

37 The dot plot shows the number of touchdowns a football team scored in 10 games last season.

Number of Touchdowns Scored/