

MATHEMATICS

Grade 4

2015 Released Test Questions

- 1 In the number shown, one digit is underlined and one digit is circled.

7(7),000

Which statement about the circled digit is true?

- A** Its value is 10 times greater than the value of the underlined digit.
- B** Its value is $\frac{1}{10}$ the value of the underlined digit.
- C** Its value is 70 times the value of the underlined digit.
- D** Its value is $\frac{1}{70}$ the value of the underlined digit.
-
- 2 Lillian paid sixty-one dollars and thirty-nine cents for groceries. The digit 3 in this number has a value of —
- A** (3×10) dollars
- B** (3×1) dollars
- C** (3×0.01) dollar
- D** (3×0.1) dollar

3 Antwaan decorated 2.5 cakes with chocolate icing. Which fraction is equivalent to this number?

A $\frac{25}{100}$

B $\frac{5}{10}$

C $2\frac{5}{10}$

D $2\frac{5}{100}$

4 Which expression is equivalent to $\frac{6}{5}$?

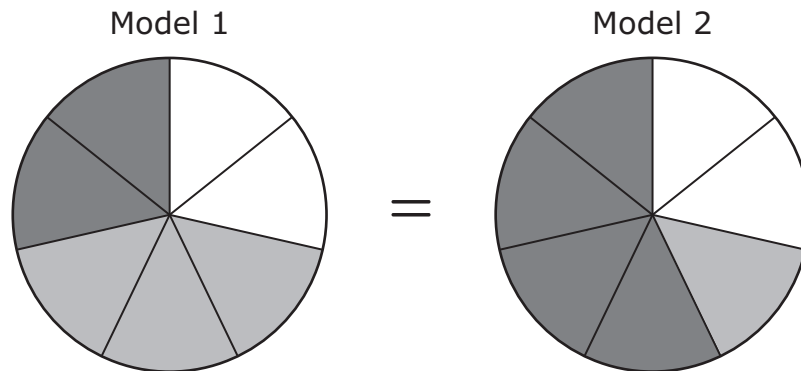
A $\frac{1}{6} + \frac{1}{5}$

B $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$

C $\frac{1}{5} + \frac{6}{1}$

D $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6}$

- 5 The two models are shaded to represent the same fraction, $\frac{5}{7}$.



Which equation shows that the two models represent the same fraction?

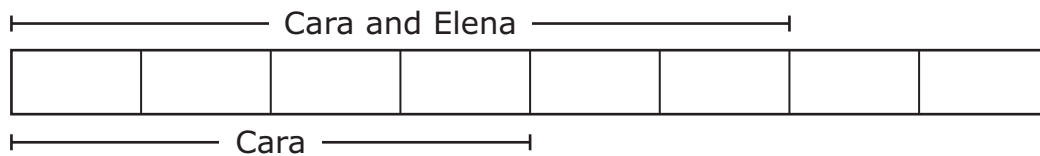
- A** $\frac{2}{7} + \frac{3}{7} = \frac{4}{7} + \frac{1}{7}$
- B** $\frac{2}{7} + \frac{3}{7} = \frac{5}{7} + \frac{1}{7}$
- C** $\frac{1}{2} + \frac{1}{3} = \frac{1}{4} + \frac{1}{1}$
- D** $\frac{1}{2} + \frac{1}{3} = \frac{1}{5} + \frac{1}{1}$

- 6 Which statement about the fractions $\frac{5}{10}$ and $\frac{6}{12}$ is true?
- A These fractions are both greater than 1, because their denominators are greater than their numerators.
 - B These fractions are both equal to 1, because their denominators are greater than their numerators.
 - C These fractions are equivalent, because their denominators are half their numerators.
 - D These fractions are equivalent, because their denominators are twice their numerators.

-
- 7 Faith has completed $\frac{6}{18}$ of her math homework. Olivia has completed $\frac{4}{9}$ of her math homework. Which of these girls has completed a greater fraction of her math homework?

- A Faith, because $\frac{6}{18} > \frac{4}{9}$
- B Faith, because $\frac{6}{18} < \frac{4}{9}$
- C Olivia, because $\frac{4}{9} < \frac{6}{18}$
- D Olivia, because $\frac{4}{9} > \frac{6}{18}$

- 8 Cara and Elena used fabric to make costumes for a talent show. Cara used $\frac{4}{8}$ of the fabric for her costume. The girls used $\frac{6}{8}$ of the fabric altogether.



What fraction of the fabric did Elena use?

- A $\frac{10}{16}$
- B $\frac{10}{8}$
- C $\frac{2}{8}$
- D $\frac{1}{2}$
-
- 9 Hailey and Wendy painted an entire wall together. Hailey painted $\frac{3}{7}$ of the wall, and Wendy painted the rest. Which statement is true?
- A Hailey painted less than half the wall, and Wendy painted more than half the wall.
- B Hailey painted more than half the wall, and Wendy painted less than half the wall.
- C Each girl painted more than half the wall.
- D Each girl painted less than half the wall.

10 The locations and lengths of three of the longest tunnels in the world are listed.

- Gotthard Base Tunnel in Switzerland, 57.07 km
- Seikan Tunnel in Japan, 53.85 km
- Channel Tunnel between England and France, 50.45 km

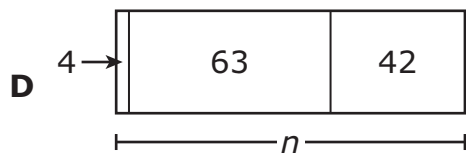
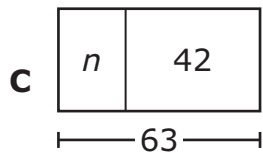
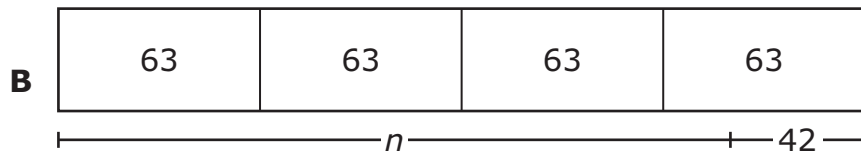
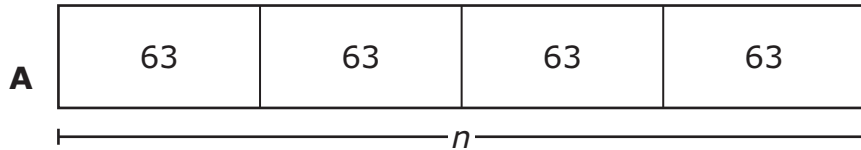
What is the difference between the length of the Channel Tunnel and the length of the Gotthard Base Tunnel in kilometers?

- A** 3.22 km
- B** 7.62 km
- C** 6.62 km
- D** 7.42 km

11 Kareem will use beads to make bracelets. He has 475 beads and needs to use 9 beads for each bracelet. What is the greatest number of bracelets Kareem can make with 475 beads?

- A** 52
- B** 49
- C** 45
- D** 53

- 12** Madeline has 4 rolls of tape. Each roll contains 63 inches of tape. Madeline used 42 inches of tape for a project. Which diagram shows a way to find n , the number of inches of tape that Madeline has left?

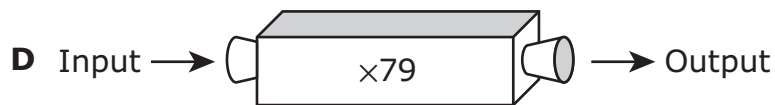
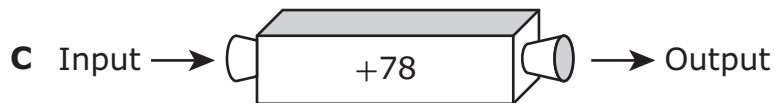
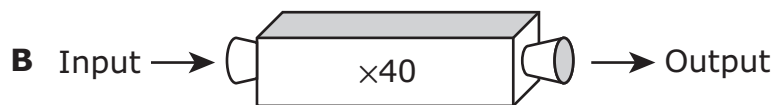
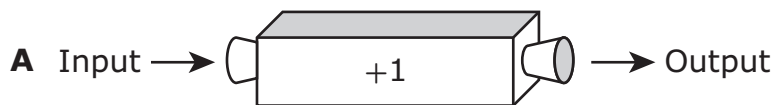


- 13** The table shows a relationship between the input numbers and the output numbers generated by a number machine.

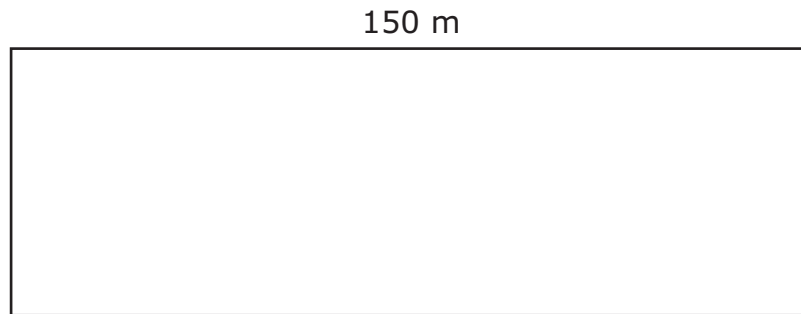
Number Machine

| Input | Output |
|-------|--------|
| 1 | 79 |
| 2 | 80 |
| 3 | 81 |
| 4 | 82 |

Which number machine shows the same relationship as the one shown in the table?



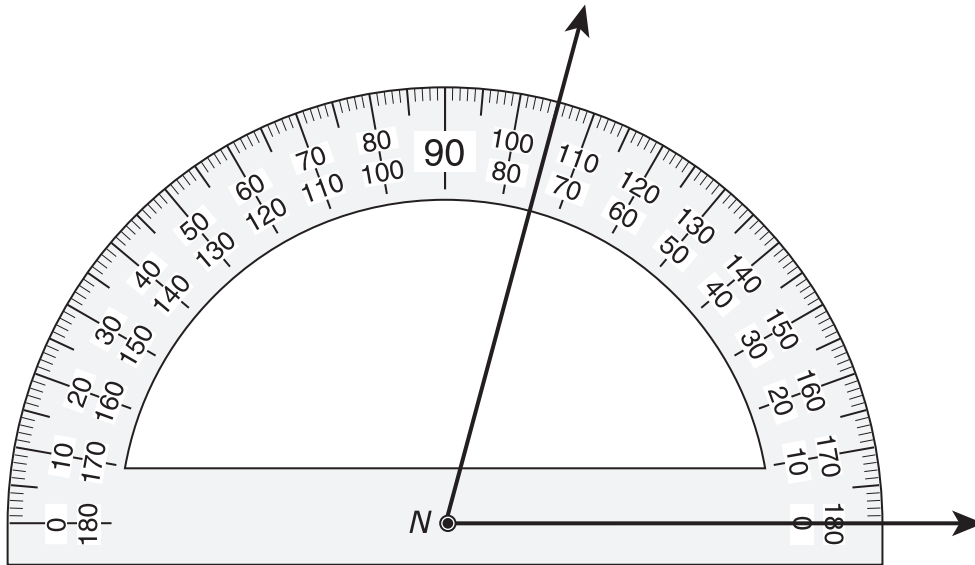
- 14** The model shows a rectangular field with a length of 150 m. The perimeter of the field is 400 m.



What is the width of the field in meters?

- A** 250 m
 - B** 100 m
 - C** 125 m
 - D** 50 m
-
- 15** Which figure **cannot** have parallel line segments?
- A** Square
 - B** Pentagon
 - C** Triangle
 - D** Trapezoid

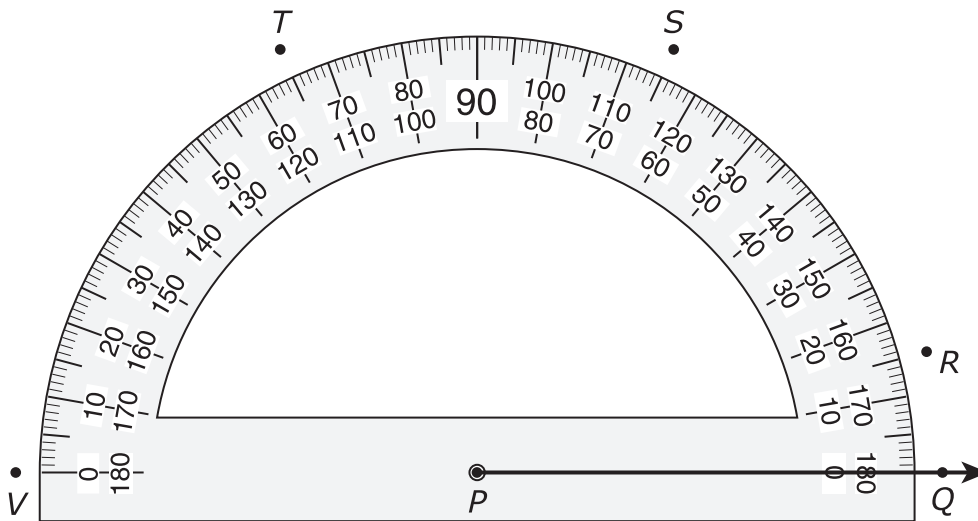
16 Angle N is shown on this protractor.



What is the measure of angle N to the nearest degree?

- A 75°
- B 105°
- C 80°
- D 180°

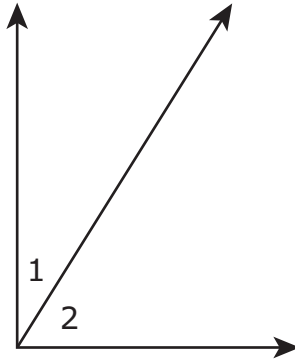
- 17** Frank is using a protractor to construct an angle that measures 65° . First he draws ray PQ , as shown on the protractor.



To complete the 65° angle, Frank should draw another ray that starts at point P and passes through —

- A** point R
- B** point S
- C** point T
- D** point V

- 18** Angle 1 and angle 2 form a right angle.



The measure of angle 1 is 32° . What is the measure of angle 2?

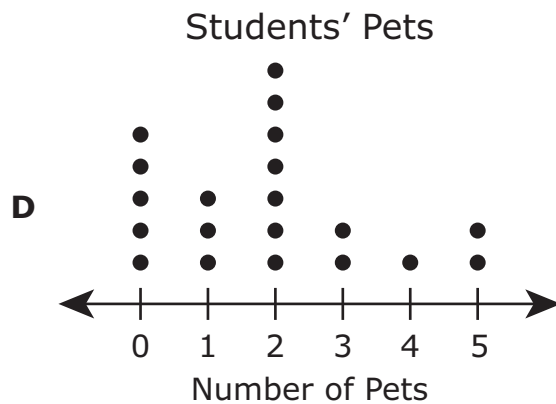
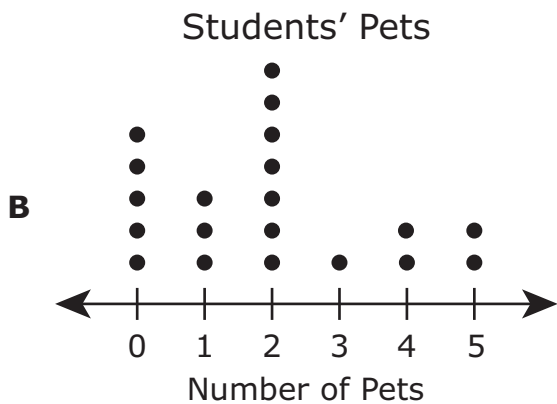
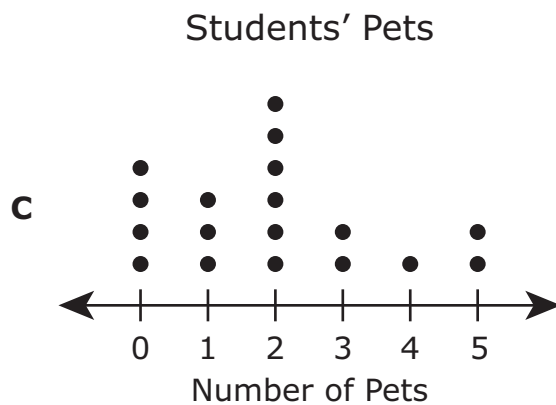
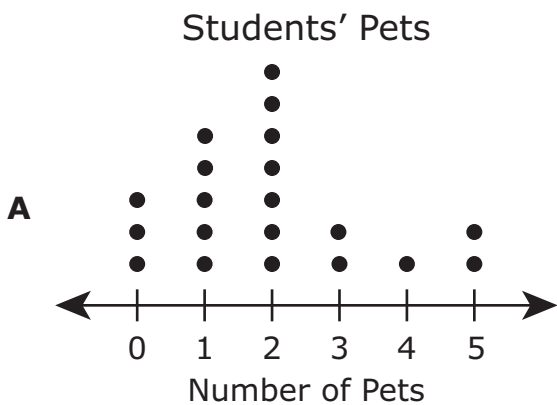
- A** 32°
 - B** 90°
 - C** 58°
 - D** 62°
-
- 19** Vivian had a \$5 bill, 3 quarters, 2 dimes, and 5 nickels. She paid for a poster that cost \$5.36. How much money does she have left?
- A** \$1.16
 - B** \$0.84
 - C** \$6.20
 - D** \$0.04

20 The table shows the number of pets that each student in Mrs. Morris’s class owns.

Students’ Pets

| Number of Pets | Frequency |
|----------------|-----------|
| 0 | ⅞ |
| 1 | III |
| 2 | ⅞ II |
| 3 | II |
| 4 | I |
| 5 | II |

Which dot plot represents the data in the table?



- 21** Karnika recorded the number of minutes she practiced volleyball each week for several weeks. She used a stem and leaf plot to organize the data.

Volleyball Practice Time

| Stem | Leaf |
|------|-------|
| 14 | 0 2 2 |
| 15 | 5 5 |
| 16 | 0 |

14|2 means 142 minutes.

Based on the data, what is the amount of time in minutes Karnika practiced volleyball?

- A** 894 min
- B** 597 min
- C** 594 min
- D** 1,224 min

22 Raina sold pens decorated with fancy tape.

- Raina's expenses were \$11.57 for supplies.
- Raina sold 12 pens for \$2 each.

What was Raina's profit?

- A** \$24.00
- B** \$35.57
- C** \$12.43
- D** \$2.43

23 Which of these services is **not** provided by a financial institution such as a bank or credit union?

- A** Informing customers of the amount of money in their accounts
- B** Informing customers of how the money in their accounts must be spent
- C** Providing cash when customers make withdrawals from their accounts
- D** Providing loans to customers that can be paid back over time with interest

| Item Number | Correct Answer | Reporting Category | Readiness or Supporting | Content Student Expectation | Process Student Expectation |
|-------------|----------------|--------------------|-------------------------|-----------------------------|-----------------------------|
| 1 | B | 1 | Supporting | 4.2(A) | 4.1 (B),(G) |
| 2 | D | 1 | Readiness | 4.2(B) | 4.1 (A),(B),(D),(F) |
| 3 | C | 1 | Readiness | 4.2(G) | 4.1 (A),(B),(F) |
| 4 | B | 1 | Supporting | 4.3(A) | 4.1 (B),(F) |
| 5 | A | 1 | Supporting | 4.3(B) | 4.1 (B),(E),(F) |
| 6 | D | 1 | Supporting | 4.3(C) | 4.1 (B),(G) |
| 7 | D | 1 | Readiness | 4.3(D) | 4.1 (A),(B),(G) |
| 8 | C | 2 | Readiness | 4.3(E) | 4.1 (A),(B),(E),(F) |
| 9 | A | 2 | Supporting | 4.3(F) | 4.1 (A),(B),(G) |
| 10 | C | 2 | Readiness | 4.4(A) | 4.1 (A),(B),(F) |
| 11 | A | 2 | Readiness | 4.4(H) | 4.1 (A),(B),(F) |
| 12 | B | 2 | Readiness | 4.5(A) | 4.1 (A),(B),(D),(F) |
| 13 | C | 2 | Readiness | 4.5(B) | 4.1 (B),(D),(F) |
| 14 | D | 3 | Readiness | 4.5(D) | 4.1 (A),(B),(C),(E),(F) |
| 15 | C | 3 | Readiness | 4.6(D) | 4.1 (B),(F) |
| 16 | A | 3 | Readiness | 4.7(C) | 4.1 (B),(C),(F) |
| 17 | B | 3 | Supporting | 4.7(D) | 4.1 (A),(B),(C),(F) |
| 18 | C | 3 | Supporting | 4.7(E) | 4.1 (B),(E),(F) |
| 19 | B | 3 | Readiness | 4.8(C) | 4.1 (A),(B),(F) |
| 20 | D | 4 | Readiness | 4.9(A) | 4.1 (A),(B),(D),(F) |
| 21 | A | 4 | Supporting | 4.9(B) | 4.1 (A),(B),(E),(F) |
| 22 | C | 4 | Supporting | 4.10(B) | 4.1 (A),(B),(F) |
| 23 | B | 4 | Supporting | 4.10(E) | 4.1 (A),(B),(G) |