Mathematics ▼

Read each of the questions below and then decide on the BEST answer.

1
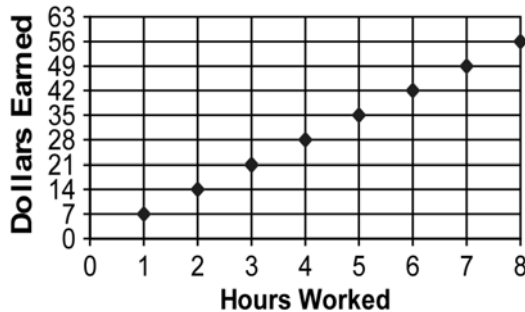
Anna is trying to decide between 4 different brands of yogurt. Order her choices from least expensive to most expensive.

Yogurt	Price
Q	$1.05
X	$0.95
Y	$0.59
Z	$0.75

A. $1.05, $0.95, $0.75, $0.59

B. $0.59, $0.95, $0.75, $1.05

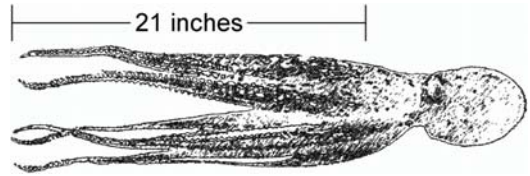C. $0.59, $0.75, $0.95, $1.05

D. $1.05, $0.95, $0.59, $0.75

2

Jon got a summer job cleaning horse barns. Using the graph, determine how much money Jon will earn in one 8-hour day.
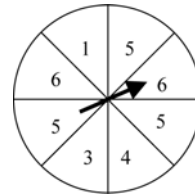
A. $8   B. $35   C. $56   D. $63

3

An octopus has 8 legs. The octopus' legs are each 21 inches long. Estimate how long all 8 octopus legs are together.

A. 28 inches   C. 160 inches
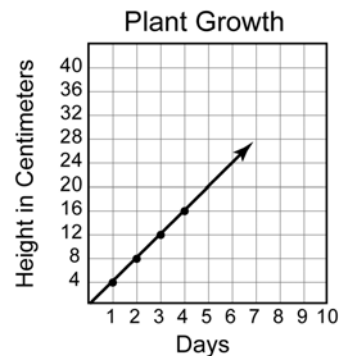
B. 150 inches   D. 255 inches

4

What is the probability of getting a 5 on this spinner?

A. $\dfrac{1}{8}$ B. $\dfrac{1}{4}$ C. $\dfrac{3}{8}$ D. $\dfrac{1}{2}$

5

How many centimeters tall will the plant be on the 8th day?

A. 2   C. 32

B. 16   D. 40

Mathematics▼

6

There are 2,280 people living in a small town. The area of the town is 5 square miles. How many people are there per square mile?

- A.   456 people per square mile
- B.   2275 people per square mile
- C.   2285 people per square mile
- D. 11,400 people per square mile

7

At the beginning of the school year, Juan could do 35 sit-ups in one minute. By June, he increased that number by y sit-ups. In June he could do _____ sit-ups.

- A. 35 + y
- B. 35 – y
- C. 35 ÷ y
- D. 35y

8

Kevin took his dog for an evening walk around the perimeter of the lake in his park. He later reported to his family that they had walked a total of 1.75 _____.

- A. miles
- B. yards
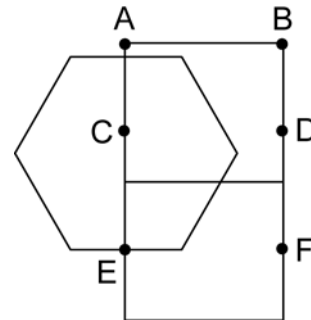- C. feet
- D. inches

9

Jessica rolled the die 40 times. Her results are in the data table. Using the results of her experiment, what is the best prediction for how many 6's she would get if she rolled the die 365 times?

Roll 'em

Number rolled	Times rolled
1	III
2	卌
3	卌 II
4	卌
5	卌 卌 II
6	卌 III

- A. 72
- B. 73
- C. 320
- D. 325

10

Darla was staring at a "doodle" she made while talking on the telephone. Which one of the line segments did she identify as dividing the hexagon into 2 congruent shapes?

- A. $\overline{AE}$
- B. $\overline{CD}$
- C. $\overline{ED}$
- D. $\overline{EF}$

11

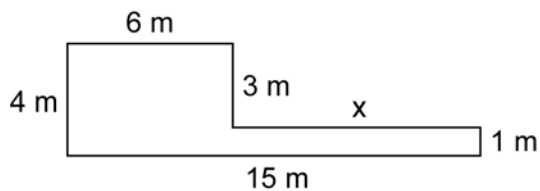Using a numbered cube with digits 1-6 on its faces, what is the probability of rolling a 4?

A. $\dfrac{4}{6}$

B. $\dfrac{2}{3}$

C. $\dfrac{1}{3}$

D. $\dfrac{1}{6}$

12

Joe's test scores are 80, 82, 87 and 75. What is his <u>mean</u> score?

A. 80   B. 81   C. 83   D. 85

13

What is the length of side x?

A. 8 m   C. 21 m
B. 9 m   D. 22 m

14

Malik was given a bag of blue, green, red, and white marbles for an experiment. Without looking, he randomly pulled out a marble, wrote down its color and replaced it. After ten tries he had these results: six blue, three red, and one white. Using this information, which color marble is most likely to be pulled out next?

A. Blue   C. Red
B. Green   D. White

15

Sara went shopping for school supplies at the student store. She purchased 6 pencils and 9 erasers, and spent $12.57 on other supply items. If the cost of each pencil is P and the cost of each eraser is E, which equation would best represent how to find the total spent?

A. 6P + 9E + $12.57 = total spent
B. (6 + P) x (9 + E) + $12.57 = total spent
C. (6P + 9E) x $12.57 = total spent
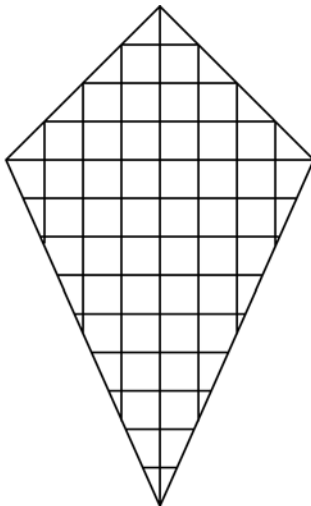D. 6P x 9E x $12.57 = total spent

Mathematics▼

16
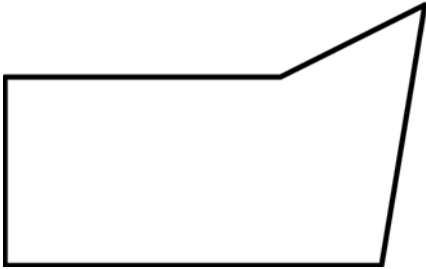
What is the name of this polygon?

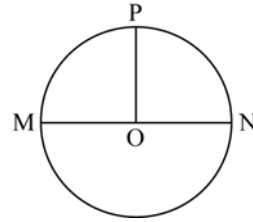A. Rectangle

B. Pentagon

C. Hexagon

D. Octagon

17

1 square foot
of fabric

Evan's kite

Evan is making a kite. Approximately how many square feet of fabric is the kite?

A. Between 5 and 6

B. Between 11 and 14

C. Between 21 and 24

D. Between 45 and 46

18

P

M   O   N

Line segment $\overline{PO}$ is a _____ of the circle.

A. diameter

B. radius

C. chord

D. line

19

Jenny has a dog pen that is 8 feet x 4 feet. She recently bought a Great Dane, who requires more room. Jenny would like to triple the overall area. If she keeps one side of the pen 8 feet long, what will be the length of the other side of the pen?

A.   7 feet

B. 11 feet

C. 12 feet

D. 24 feet

20

Two packages of cookies cost $5.90. How much do 6 packages cost?

A. $35.40

B. $17.70

C. $11.90

D. $ 2.95

M4

21

Mr. Smith put this table on the overhead and challenged his class to formulate the rule for the table. Which of the choices best summarizes the rule for Mr. Smith's table?

A input	B output
2	4
3	7
4	10
5	13
6	16

A. A • 2 = B   C. A • 2 + 2 = B

B. A • 2 + 1 = B   D. A • 3 – 2 = B

22

Al is building a sandbox for his son, who wants it to be in the shape of a triangle. What should the third angle (x) measure?

A. x = 25^0 C. x = 65^0
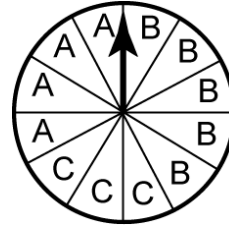
B. x = 30^0 D. x = 155^0
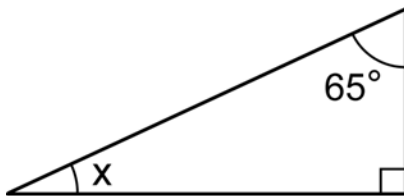
23

Michaela has covered her wall with posters without overlapping them. Each poster is 2 feet tall and 3 feet wide. She was able to fit 16 of them on her wall before she ran out of space. What is the best estimate for the area of her wall? About___

A. 30 sq. ft.   C. 80 sq. ft.

B. 50 sq. ft.   D. 100 sq. ft.

24

How many A's can Ken expect to spin in 36 spins of this spinner?
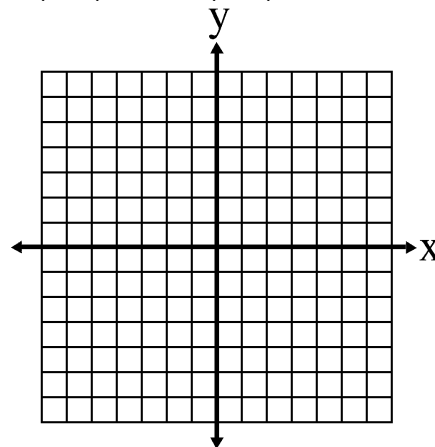

A. 4   B. 9   C. 12   D. 36

25

The office has two people waiting at noon. Every 15 minutes the number of people waiting doubles. How many people are waiting at 1:00 pm?

A. 4   B. 8   C. 16   D. 32

26

What is the area of triangle ABC, with A (–2, 0), B (4, 0), and C (2, 7)?

A. 18 square units

B. 21 square units

C. 24 square units

D. 36 square units

Mathematics ▼

27

Ken has some granola bars: 7 are peanut butter, 11 are raisin and 9 are chocolate chip. What fractional amount of the granola bars are chocolate chip?

A. 9   B. $\dfrac{9}{3}$ C. $\dfrac{9}{18}$ D. $\dfrac{1}{3}$

28

A stereo store has a 25% off sale. Allen wants to find out how much a $300 stereo would cost. Which strategy could Allen use?

A. 300 – 25

B. $300 - (300 \times \dfrac{1}{4})$

C. $300 \times \dfrac{1}{4}$

D. 300 – (300 – 25)

29
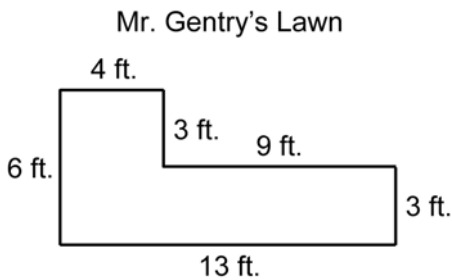
Mr. Gentry's Lawn

Ken had a weekly lawn-mowing job working for Mr. Gentry. Each Saturday, Ken mowed the lawn. How much area did he mow each week?

A.   38 ft^2
B.   51 ft^2
C.   78 ft^2
D. 117 ft^2

30

Sam plans to double his trading cards each month. He has 13 cards now. How many will he have at the end of 3 months?

A. 39   B. 52   C. 78   D. 104

GRADE 6 MATHEMATICS SAMPLE TEST KEY 2008 – 2010

Test Item	Correct Answer	Score Reporting Category	SRC Coding
1	C	Calculations and Estimations	1.1.61
2	C	Algebraic Relationships	4.2.67
3	C	Calculations and Estimations	1.2.616
4	C	Statistics and Probability	3.4.62
5	C	Algebraic Relationships	4.2.67
6	A	Measurement	2.2.621
7	A	Algebraic Relationships	4.2.56
8	A	Measurement	2.1.61
9	B	Statistics and Probability	3.4.61
10	A	Geometry	5.2.62
11	D	Statistics and Probability	3.4.62
12	B	Statistics and Probability	3.1.61
13	B	Geometry	5.1.64
14	A	Statistics and Probability	3.4.61
15	A	Algebraic Relationships	4.2.66
16	B	Geometry	5.1.61
17	B	Measurement	2.2.620
18	B	Geometry	5.1.62
19	C	Measurement	2.2.618
20	B	Calculations and Estimations	1.1.68
21	D	Algebraic Relationships	4.2.67
22	A	Geometry	5.1.65
23	D	Measurement	2.2.620
24	C	Statistics and Probability	3.4.62
25	D	Algebraic Relationships	4.1.61
26	B	Geometry	5.3.62
27	D	Calculations and Estimations	1.1.61
28	B	Calculations and Estimations	1.2.613
29	B	Measurement	2.2.615
30	D	Algebraic Relationships	4.1.61

CONVERTING TO A RIT SCORE

Number Correct	RIT score	Number Correct	RIT score
1	178.3	16	222*
2	186.7	17	223.7
3	192	18	225.5
4	196	19	227.4
5	199.3	20	229.2
6	202.1	21	231.2
7	204.6	22	233.3**
8	206.9	23	235.5
9	209	24	237.8
10	211	25	240.5
11	213	26	243.5
12	214.8	27	247.2
13	216.7	28	252
14	218.4	29	259.7
15	220.2	30	267

* Likely to meet Grade 6 Standards   ** Likely to exceed Grade 6 Standards
Note: The sample test is for practice only; scores may not be substituted for the Oregon Statewide Assessment.