DIRECTIONS

Read each of the questions below and then decide on the BEST answer. There are a lot of different kinds of questions, so read each question carefully before marking an answer on your answer sheet.

1

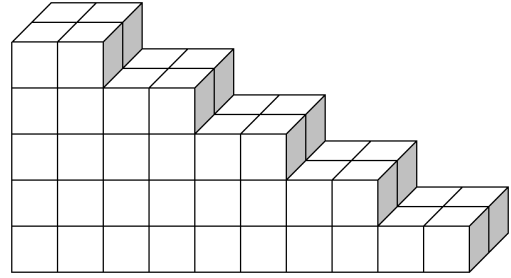Find the next two numbers for this arithmetic sequence:

10, -4, -18, -32, __, __

- A. -38, -44
- B. -44, -52
- C. -46, -60
- D. -52, -68

2

The average distance from the Earth to the sun is 9.296×10^7 miles. The distance written in standard form is:

- A.   92,960 miles
- B.   9,296,000 miles
- C.   92,960,000 miles
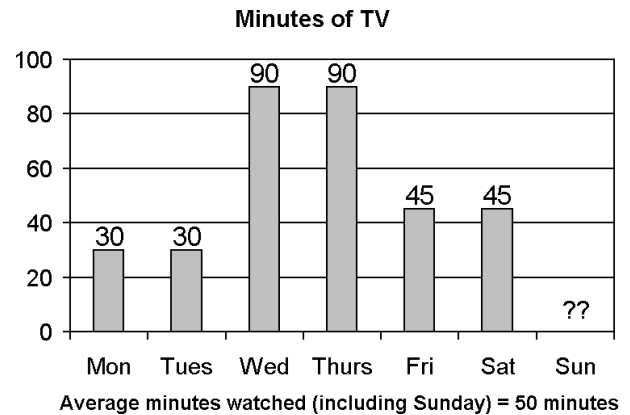- D. 92,960,000,000 miles

3

How many cubes are needed to make this solid figure?

- A. 30
- B. 40
- C. 50
- D. 60

4

Luis watches TV everyday. He watches 30 minutes on Monday and Tuesday, 90 minutes on Wednesday and Thursday, and 45 minutes on Friday and Saturday.

Minutes of TV

Average minutes watched (including Sunday) = 50 minutes

The average amount of time that Luis watches TV every day is 50 minutes. How much time does Luis watch TV on Sunday?

- A. 20 minutes
- B. 30 minutes
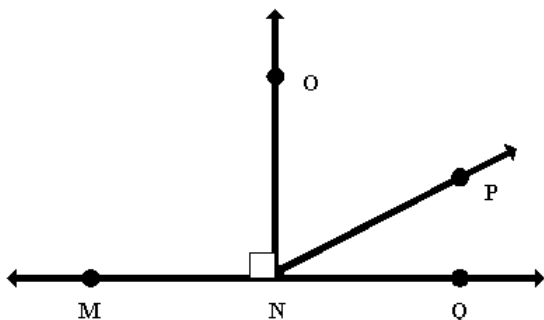- C. 45 minutes
- D. 50 minutes

Mathematics ▼

5

Graciella is one year less than twice as old as her youngest brother. Which expression could be used to show her age?

    A. 1-2b

    B. 2b-1

    C. 2b

    D. 2b+1

6

Which line segment is perpendicular to line $\overline{MQ}$

    A. Line segment NP

    B. Line segment NO

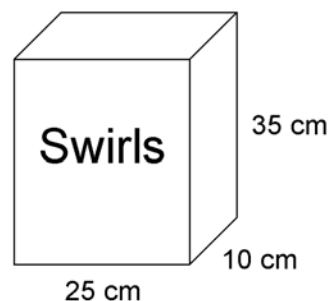   C. Line segment NQ

    D. Line NP

7

What is the missing number?

$$33 = (56 \div 7) \times 4 + \square$$

    A. 21

    B. 5

    C. 3

    D. 1

8

Find the total surface area of this box of Swirls:

    A. 2,100 square centimeters

    B. 2,950 square centimeters

    C. 5,250 square centimeters

    D. 8,750 square centimeters

9

There are 6 red, 4 green, and 2 blue marbles in a sack. If you reach in and pull out one marble, what is the probability it will be blue?

    A. $\dfrac{1}{6}$ C. $\dfrac{1}{2}$

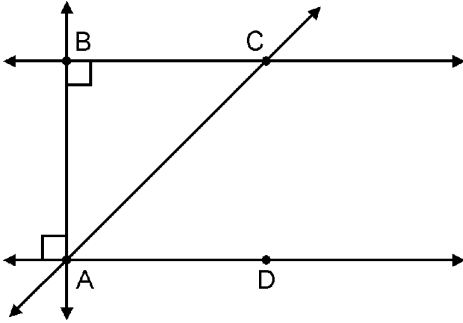   B. $\dfrac{1}{3}$ D. 2

10

What number is missing?

56, 44, 34, 26, ____, 16, 14

    A. 18

    B. 20

    C. 22

    D. 24

M2

11

Which of the following is <u>not</u> true about line AB and line BC?

A. They are perpendicular.
B. They form an acute angle.
C. They form a right angle.
D. They form a 90° angle.

12

For his job working at a telephone company, Jeff has to talk to 42 people each day. On average, only 7 out of the first 10 people answer the phone. Using this information, predict how many people Jeff will need to call before talking to 42 people.

A. 49
B. 52
C. 60
D. 70

13

Dailene has 30 CD's and buys 2 new ones every week. Renae has 18 CD's and buys 4 new ones every week. After how many weeks will Renae and Dailene have the same number of CD's?

A. 3
B. 6
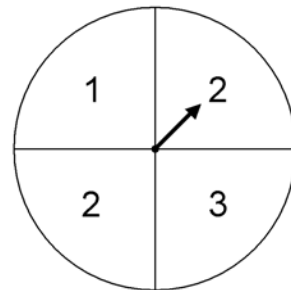C. 8
D. They won't ever have the same number of CD's.

14

Sally's swimming pool is 12 feet long, 8 feet wide, and 6 feet deep. She will fill it to the top. How much water will be in the pool?

A. 576 square feet
B. 576 cubic feet
C. 576 yards
D. 576 square yards

15

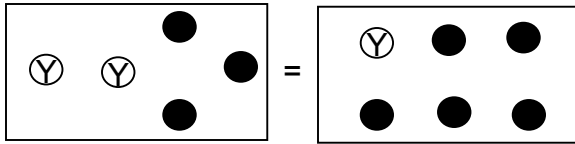How many times is the spinner likely to land on a space for 2 in 20 spins?

A. 2 times
B. 5 times
C. 10 times
D. 40 times

Mathematics ▼

16
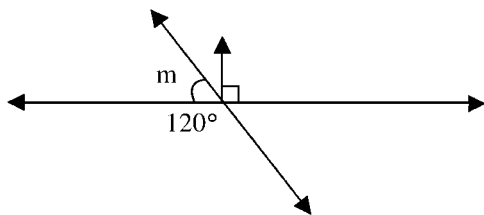
Use these objects to find the value of each Y variable.

A. Y=0 ●
B. Y=1 ●
C. Y=2 ●
D. Y=3 ●

17

Find the measure of angle m:

A. 30°　　B. 45°　　C. 60°　　　D. 90°

18

The 8th grade party committee has decided to give an equal number of pieces of candy to each participant. There are 256 pieces to give away. If all of the candy is given away, which of these could not be the number of pieces of candy given away to each person under this plan?

A. 128
B.　36
C.　16
D.　　8

19

Tonya wanted to approximate the amount of water in the small lake they were boating on. What would be the most appropriate unit of measure to use?

A. km^2
B. mi^2
C. cm^3
D. ft^3

20

A fair six-sided die is rolled 60 times. About how many times would you **expect** to roll a "4"?
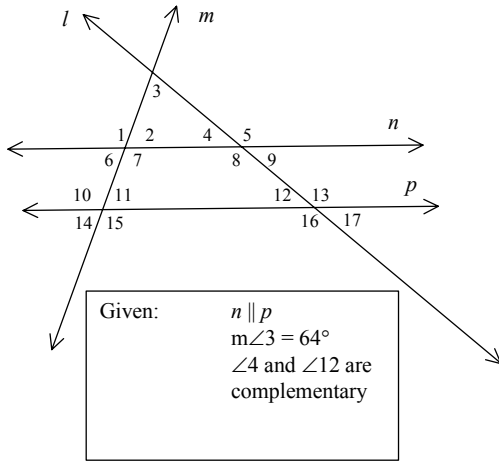
A.　4
B. 10
C. 15
D. There is no way to tell.

21

Mari's teacher put a red dot on 1, 4, 9, and 16 on a number line. The teacher asked Mari to continue the same pattern by putting 3 more dots on the same number line. Which number did Mari put the third dot on?

A. 23
B. 25
C. 36
D. 49

M4

...

22

Given: $n \parallel p$
$m\angle 3 = 64°$
$\angle 4$ and $\angle 12$ are complementary

The measure of $\angle 11$ equals

   A.   45°

   B.   58°

   C.   71°

   D. 109°

23

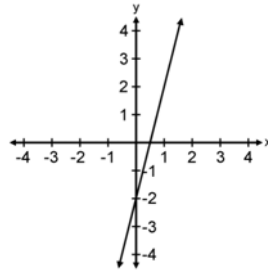John throws a fair 6-sided die. What is the chance he will get a 3 OR a 6?

   A. $\dfrac{1}{12}$

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

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

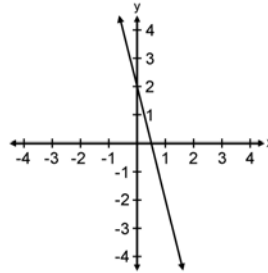   D. $\dfrac{1}{2}$

24

Look at the table and select the graph that represents this algebraic relationship.

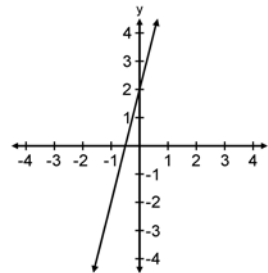| x	y
-2	10
-1	6
0	2
1	-2
2	-6

A.
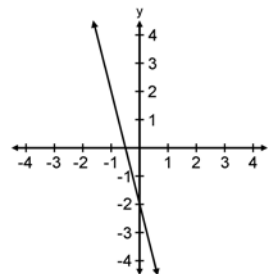

B.

C.
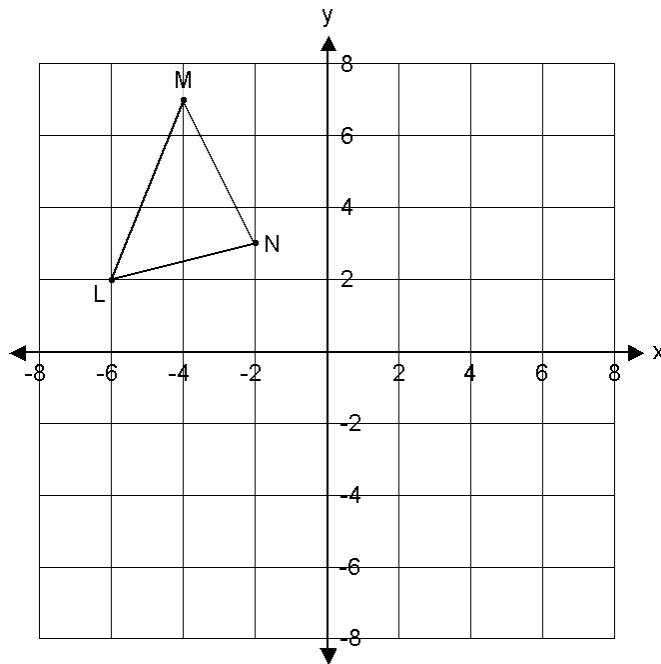

D.

25

Triangle LMN is shifted 3 right and 3 down.
The new vertex M' is in which quadrant?

    A. Quadrant I

    B. Quadrant II

    C. Quadrant III

    D. Quadrant IV

GRADE 7 MATHEMATICS SAMPLE TEST KEY 2004 – 2007

Test Item	Correct Answer	Score Reporting Category	SRC Coding
1	C	Algebraic Relationships	4.1.71
2	C	Calculations and Estimations	1.2.72
3	D	Measurement	2.2.715
4	A	Statistics and Probability	3.1.71
5	B	Algebraic Relationships	4.2.72
6	B	Geometry	5.1.73
7	D	Calculations and Estimations	1.3.75
8	B	Measurement	2.2.711
9	A	Statistics and Probability	3.2.71
10	B	Algebraic Relationships	4.1.71
11	B	Geometry	5.1.73
12	C	Calculations and Estimations	1.1.78
13	B	Algebraic Relationships	4.2.72
14	B	Measurement	2.1.71
15	C	Statistics and Probability	3.2.71
16	C	Algebraic Relationships	4.3.71
17	C	Geometry	5.1.73
18	B	Calculations and Estimations	1.1.715
19	D	Measurement	2.1.71
20	B	Statistics and Probability	3.2.72
21	D	Algebraic Relationships	4.1.71
22	C	Geometry	5.1.73
23	C	Statistics and Probability	3.2.71
24	B	Algebraic Relationships	4.2.77
25	B	Geometry	5.4.74

CONVERTING TO A RIT SCORE

Number Correct	RIT score	Number Correct	RIT score
1	193.8	14	230.5
2	201.3	15	232.3
3	206.0	16	234.2
4	209.6	17	236.1
5	212.5	18	238.2
6	215.0	19	240.5
7	217.3	20	243.0
8	219.4	21	245.9
9	221.4	22	249.4
10	223.3	23	254.1
11	225.1	24	261.7
12	226.9	25	268.9
13	228.7		

Note: The sample test is for practice only; scores may not be substituted for the Oregon Statewide Assessment.