Test Ninjas

GED Math Practice Test 1

Mathematical Reasoning · full-length practice test · Edition 2026.11

46	115	2
scored questions	minutes	parts

Name _____ Date _____

Before you start

- Set a timer for 115 minutes and work in one sitting, as on test day.
- Part 1: no calculator. Part 2: a TI-30XS MultiView or another scientific calculator. The formula sheet on page 3 is allowed for the whole test.
- Mark your answers on the answer sheet near the back, then score each content area with the answer key and scoring table.
- The same test, with the explanations and a GED-style test window, is free online at test-ninjas.com.

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Directions

This test has Part 1: no calculator (questions 1–5), Part 2: calculator allowed (questions 6–46). You have 115 minutes in all.

Part 1: no calculator. Part 2: a TI-30XS MultiView or another scientific calculator. The formula sheet on page 3 is allowed for the whole test.

How to answer each kind of question

- **Multiple choice:** fill in the circle of the one best answer.
- **Fill in the blank:** write your answer on the line, in the units shown.
- **Drop-down:** for each numbered blank, choose the option that correctly completes the sentence.
- **Drag and drop:** write the letter of the box each item belongs in.
- **Hot spot:** mark the point on the grid and write its coordinates.

Answer every question: there is no penalty for a wrong answer. Mark any question you want to come back to in the margin.

Formula sheet

You may use this sheet on every question.

Area of a:

square	$A = s^2$
rectangle	$A = lw$
parallelogram	$A = bh$
triangle	$A = 12bh$
trapezoid	$A = 12h(b_1 + b_2)$
circle	$A = \pi r^2$

Perimeter of a:

square	$P = 4s$
rectangle	$P = 2l + 2w$
triangle	$P = s_1 + s_2 + s_3$
circle (circumference)	$C = 2\pi r$ or $C = \pi d$; $\pi \approx 3.14$

Surface area and volume of a:

rectangular prism	$SA = 2lw + 2lh + 2wh$	$V = lwh$
right prism	$SA = ph + 2B$	$V = Bh$
cylinder	$SA = 2\pi rh + 2\pi r^2$	$V = \pi r^2 h$
pyramid	$SA = 12ps + B$	$V = 13Bh$
cone	$SA = \pi rs + \pi r^2$	$V = 13\pi r^2 h$
sphere	$SA = 4\pi r^2$	$V = 43\pi r^3$

(p = perimeter of base with area B; $\pi \approx 3.14$)

Data

mean	the total of the values in a data set, divided by the number of values
median	the middle value of an odd number of ordered values, or the mean of the two middle values of an even number of ordered values

Algebra

slope of a line	$m = y_2 - y_1 x_2 - x_1$
slope-intercept form	$y = mx + b$
point-slope form	$y - y_1 = m(x - x_1)$
standard form of a quadratic	$y = ax^2 + bx + c$
quadratic formula	$x = -b \pm \sqrt{(b^2 - 4ac)2a}$
Pythagorean theorem	$a^2 + b^2 = c^2$
simple interest	$I = Prt$ (I = interest, P = principal, r = rate, t = time)
distance	$d = rt$
total cost	total cost = (number of units) × (price per unit)

Part 1: no calculator

Questions 1–5

1

A cooler in an office break room holds 8 bottles of water, 6 bottles of iced tea and 10 cans of soda. Jada reaches in and takes one drink at random.

What is the probability that the drink Jada takes is not a soda?

(A) 1/3
(B) 5/12
(C) 7/12
(D) 7/5

2

The formula F = (9/5)C + 32 changes a temperature in degrees Celsius (C) to degrees Fahrenheit (F). The forecast low for tomorrow is –10°C.

What is the forecast low in degrees Fahrenheit?

(A) –50°F
(B) 14°F
(C) 22°F
(D) 50°F

3

An electrician charges a $75 fee for each visit plus $60 for each hour of work. Kendra's bill for one visit was $315.

How many hours did the electrician work?

Answer: _____ hours

4

When Rosa was promoted to shift supervisor, her pay went from $16 an hour to $20 an hour.

By what percent did Rosa's hourly pay increase?

(A) 4%
(B) 20%
(C) 25%
(D) 125%

5

Which expression is equivalent to $(3x^2y)^3 \cdot 2xy^2$?

(A) $6x^7y^5$

(B) $18x^7y^5$

(C) $54x^6y^5$

(D) $54x^7y^5$

Part 2: calculator allowed

Questions 6–46

6

Tamika sells candles at a weekend craft market. She pays a $40 booth fee each weekend. She sells small candles for $8 each and jar candles for $14 each.

Which expression represents the amount of money, in dollars, that Tamika has left after paying the booth fee on a weekend when she sells s small candles and j jar candles?

(A) 8s + 14j + 40

(B) 14s + 8j – 40

(C) 40 – (8s + 14j)

(D) 8s + 14j – 40

7

A grocery store sells the same coffee in two sizes: a 2-pound can for $14.40 and a 12-ounce bag for $6.00. There are 16 ounces in 1 pound.

How much less per ounce does the coffee in the can cost than the coffee in the bag?

(A) $0.05

(B) $0.40

(C) $0.80

(D) $8.40

8

Devon is renting a moving truck for one day. The rental costs $45 plus $0.60 for each mile driven. Devon wants to spend no more than $225 on the truck.

Which inequality shows all the numbers of miles, m, that Devon can drive and stay within his budget?

(A) $m \geq 300$

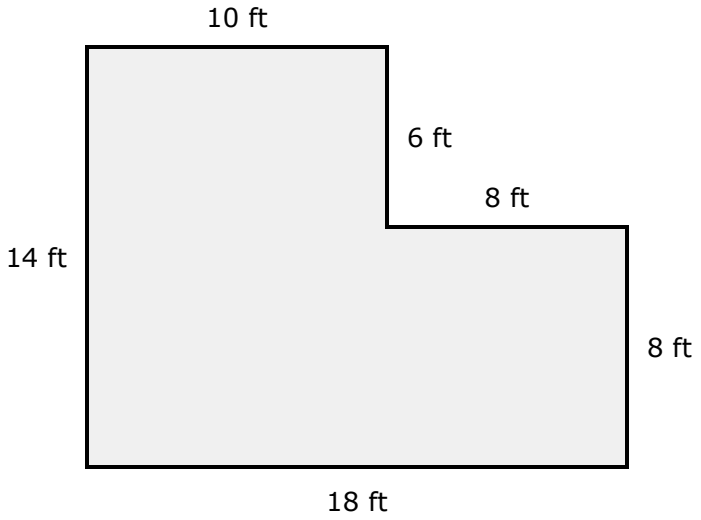
(B) $m \leq 300$

(C) $m \leq 375$

(D) $m \leq 450$

9

Luis is putting new flooring in the L-shaped room shown below. All the corners are right angles.



What is the area of the floor, in square feet?

Answer: _____ square feet

10

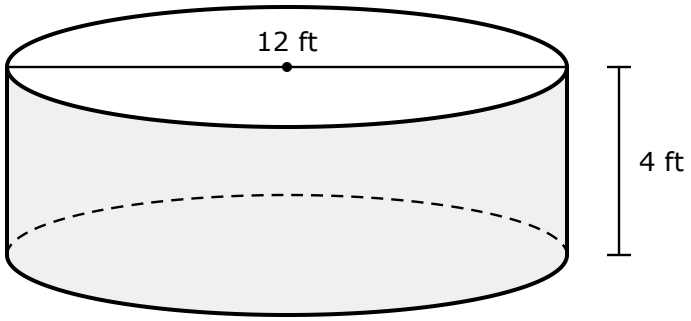
Shawna works two part-time jobs. She earns $15 an hour at a café and $22 an hour at a warehouse. Last week she worked 30 hours in all and earned $541 before taxes.

How many hours did Shawna work at the warehouse last week?

Answer: _____ hours

11

A round above-ground pool is shaped like a cylinder. It is 12 feet across and 4 feet deep.



How many cubic feet of water does it take to fill the pool to the top? Use π ≈ 3.14.

(A) 75.36 cubic feet

(B) 150.72 cubic feet

(C) 452.16 cubic feet

(D) 1,808.64 cubic feet

12

A taxi company charges a set fee for each ride plus a set amount for each mile. The table shows the cost, y, of rides of x miles.

Taxi Fares

Miles (x)	Cost in dollars (y)
2	9.50
5	15.50
8	21.50
12	29.50

Which equation represents the relationship shown in the table?

(A) y = 4.75x

(B) y = 2x + 9.50

(C) y = 5.50x + 2

(D) y = 2x + 5.50

Question 13 refers to the following information.

> **Weekly Work Hours**

Tasha works part-time at a grocery store. The bar graph shows how many hours she worked each week for six weeks.



13

Drag each number into the box for the measure of Tasha's weekly hours that it matches.

Write the letter of the box each item belongs in.

A Mean	**B** Median	**C** Mode	**D** Range

_____ 40

_____ 20

_____ 38

_____ 36

Question 14 refers to the following information.

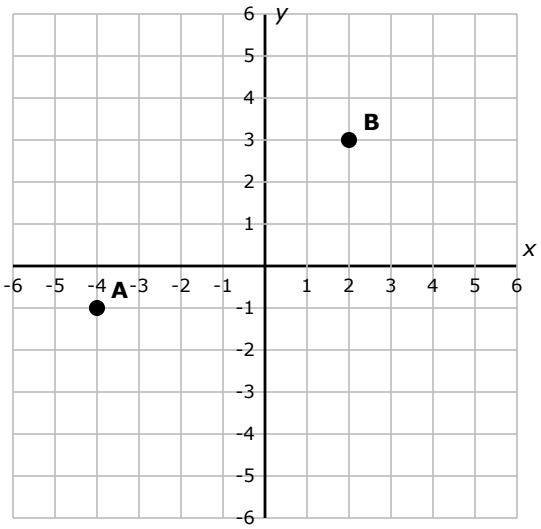
Coordinate Grid

Points A and B are shown on the coordinate grid at (−4, −1) and (2, 3). A straight line passes through both points.

Point C is also on this line. Its x-coordinate is 5.

14

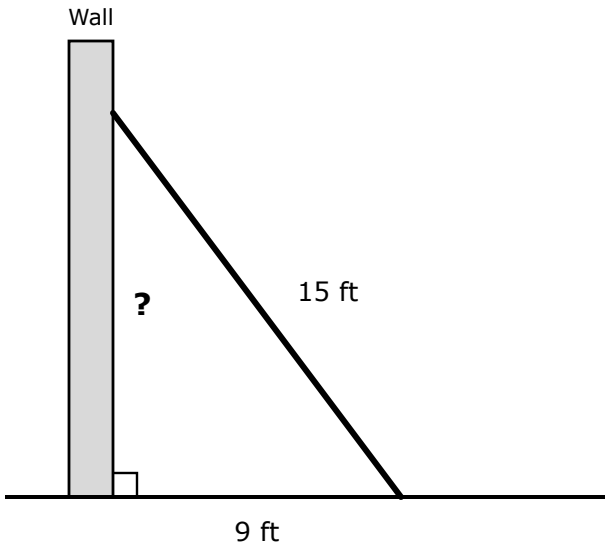
Select the location of point C on the coordinate grid.



Mark the point on the grid, then write it here: (_____ , _____)

15

A 15-foot ladder leans against the side of a house, as shown. The bottom of the ladder is 9 feet from the wall. The ground is level, and the wall is straight up and down.



How high up the wall does the top of the ladder reach?

(A) 6 feet

(B) 12 feet

(C) About 17.5 feet

(D) 24 feet

16

Jordan is building a rectangular patio with an area of 96 square feet. The length of the patio is 4 feet longer than its width.

What is the width of the patio?

(A) 8 feet

(B) 12 feet

(C) 22 feet

(D) 24 feet

17

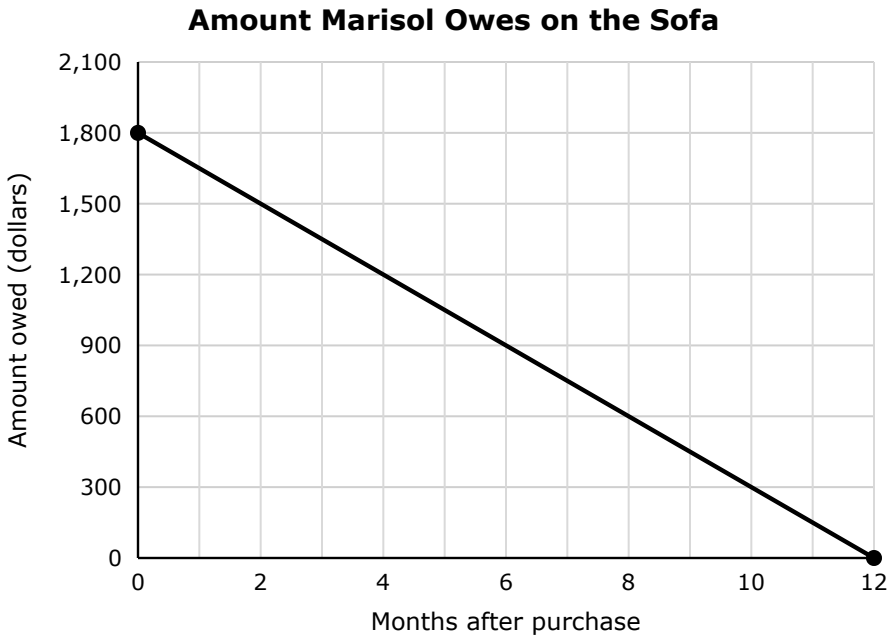
Marcus and three coworkers have lunch at a diner. Their food costs $72.50 before tax. The sales tax is 8% of the food cost, and they leave a tip of 20% of the food cost before tax. They split the total, including tax and tip, equally among the four of them.

How much does each person pay?

Answer: $ _____

18

Marisol bought a sofa on an interest-free payment plan. She pays the same amount every month. The graph shows the amount she still owes, y, in dollars, x months after she bought the sofa.



What does the slope of the line represent?

(A) Marisol owed $1,800 when she bought the sofa.

(B) Marisol will finish paying for the sofa after 12 months.

(C) The amount Marisol owes goes down by $300 each month.

(D) The amount Marisol owes goes down by $150 each month.

19

Drag each product into the box for the expression it is equal to. A box can hold more than one product.

Write the letter of the box each item belongs in.

A $x^2 - 16$	**B** $x^2 - 8x + 16$	**C** $x^2 - 6x - 16$	**D** $x^2 + 6x - 16$

_____ $(x - 2)(x + 8)$

_____ $(x + 4)(x - 4)$

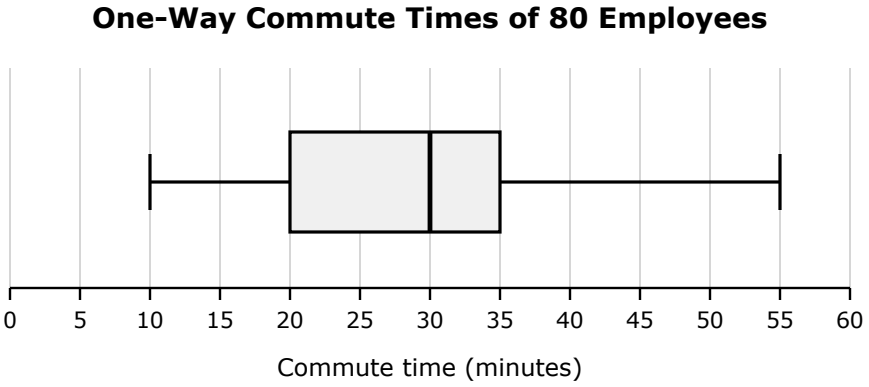
_____ $(4 - x)(4 - x)$

_____ $(x + 2)(x - 8)$

_____ $(x - 4)(x - 4)$

20

A distribution center asked all 80 of its employees how long their one-way commute to work takes. The box plot shows the results, in minutes.



Which statement is supported by the box plot?

(A) The median commute time is 35 minutes.

(B) The mean commute time is 30 minutes.

(C) About half of the employees commute between 10 and 20 minutes.

(D) About 20 of the employees commute more than 35 minutes.

21

Darius plans a monthly budget. He spends 1/3 of his take-home pay on rent and 1/4 of it on food and utilities. After paying for these, he has $1,250 left for everything else.

What is Darius's monthly take-home pay?

Answer: $ _____

22

Ayesha rides her bicycle 1 mile to work. Each wheel of her bicycle is 26 inches in diameter. There are 5,280 feet in 1 mile and 12 inches in 1 foot.

About how many complete turns does each wheel make during Ayesha's ride to work? Use $\pi \approx 3.14$.

(A) About 65

(B) About 388

(C) About 776

(D) About 1,552

23

Each relation below is a set of ordered pairs (x, y).

Which relation is a function?

(A) {(4, –1), (4, 0), (4, 1), (4, 2)}

(B) {(–1, 4), (0, 4), (1, 4), (2, 4)}

(C) {(1, 3), (2, 5), (1, 7), (3, 9)}

(D) {(0, 0), (1, 1), (1, –1), (4, 2)}

24

On a county road map, 3/4 inch represents 12 miles. On the map, the distance between the towns of Fairview and Millbrook is 2 5/8 inches.

What is the actual distance between Fairview and Millbrook?

(A) 16 miles

(B) 23 5/8 miles

(C) 31 1/2 miles

(D) 42 miles

25

A print shop uses the formula $P = cn/100 + s$ to find the price, P, in dollars, of an order of n business cards. In the formula, c is the price for each 100 cards and s is a one-time setup fee.

Which equation shows how to find the number of cards, n, from P, c and s?

(A) $n = 100(P - s)/c$

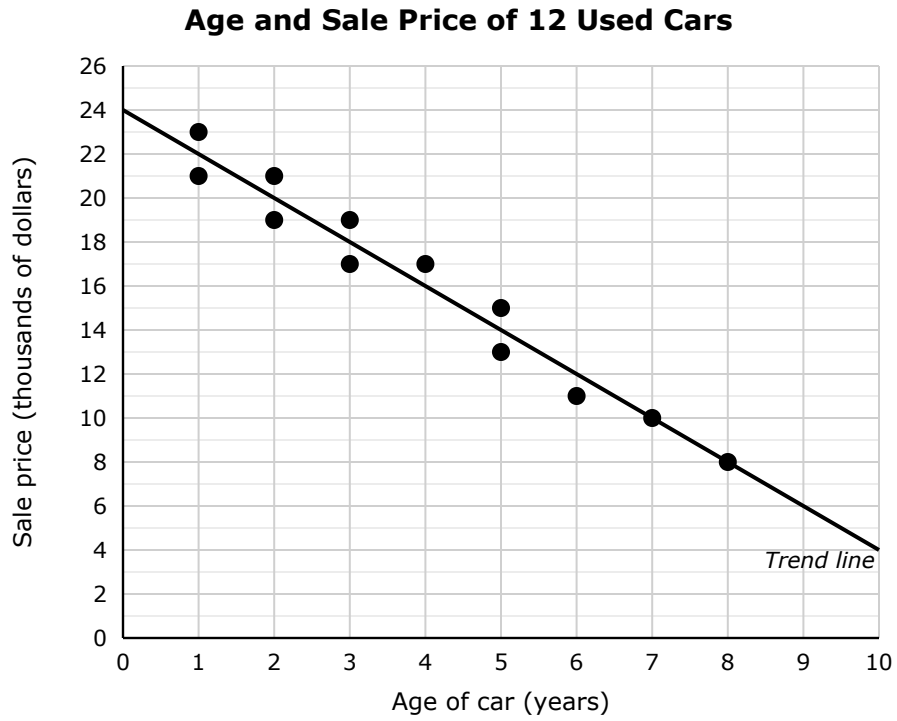
(B) $n = (100P - s)/c$

(C) $n = 100P/c - s$

(D) $n = c(P - s)/100$

Question 26 refers to the following information.

> **Used Car Prices**
>
> A used-car dealer recorded the age and the sale price of 12 cars of the same model. The scatter plot shows the data and a trend line for it. Prices are in thousands of dollars: 12 means $12,000.



26

Select the option that correctly completes each sentence.

The scatter plot shows [1] between a car's age and its sale price.
Based on the trend line, a 6-year-old car of this model would be expected to sell for about [2].
According to the trend line, the sale price goes down by about [3] for each additional year of age.

For each numbered blank, choose the option that correctly completes the sentence.

Blank 1: (A) a positive association (B) a negative association (C) no association

Blank 2: (A) $6,000 (B) $11,000 (C) $12,000 (D) $24,000

Blank 3: (A) $500 (B) $2,000 (C) $4,000 (D) $20,000

27

The power, P, in watts, used by an electric heater is given by the formula $P = I^2R$, where I is the current in amperes (amps) and R is the resistance in ohms. A space heater uses 1,500 watts and has a resistance of 9.6 ohms.

What current does the heater draw?

Answer: _____ amps

28

Kenji built a wooden storage bin shaped like a rectangular prism, 30 inches long, 18 inches wide and 12 inches tall. The bin is open at the top. He will paint the outside of the bin, including the bottom.

How many square inches will Kenji paint?

(A) 1,152

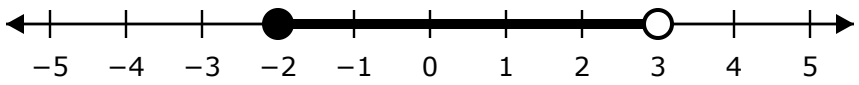
(B) 1,692

(C) 2,232

(D) 6,480

29

The number line below shows the solution set of an inequality.



Which inequality has the solution set shown on the number line?

(A) $-3 < 2x + 1 \leq 7$

(B) $-3 \leq 2x + 1 \leq 7$

(C) $-3 \leq 2x + 1 < 7$

(D) $-5 \leq 2x + 1 < 5$

30

A city's traffic department saves video from its street cameras on a server with 3.6×10^{15} bytes of storage space. One hour of video from one camera uses about 4.5×10^{9} bytes.

About how many hours of camera video can the server hold?

(A) 8×10^{5}

(B) 8×10^{6}

(C) 8×10^{7}

(D) 1.62×10^{25}

31

Which equation represents the line that passes through the points (–2, 7) and (4, –2)?

(A) $y = -(3/2)x + 4$

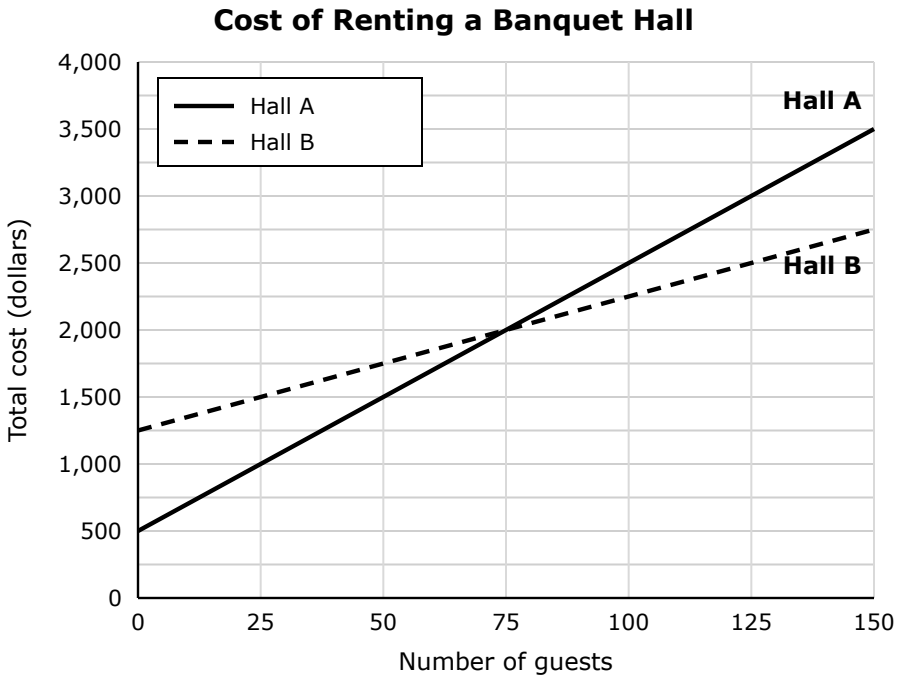
(B) $y = -(3/2)x + 10$

(C) $y = -(2/3)x + 17/3$

(D) $y = (3/2)x + 10$

32

Two banquet halls each charge a room fee plus a set amount for each guest. The graph shows the total cost of renting each hall for a party, by the number of guests.



Which statement is supported by the graph?

(A) For a party of 50 guests, Hall B costs less than Hall A.

(B) For a party of 100 guests, Hall A costs less than Hall B.

(C) Both halls charge $2,000 for a party of 75 guests.

(D) Hall A has both the lower room fee and the lower cost per guest.

33

A concrete cap for the top of a fence post is shaped like a square pyramid. The base of the cap is a square 6 inches on each side, and the cap holds 84 cubic inches of concrete.

What is the height of the cap?

Answer: _____ inches

34

The function g is defined by $g(x) = 2x^2 - 5x + 1$.

What is the value of g(–3)?

Answer: g(–3) = _____

35

Ines is taking a training course to become a certified nursing assistant. Her final grade is a weighted average of three parts. The table shows how much each part counts toward the final grade and Ines's score on each part.

Ines's Course Scores

Part	Counts for	Score
Class assignments	20%	70
Quizzes	30%	76
Final exam	50%	88

What is Ines's final grade?

(A) 75.4

(B) 78

(C) 80.8

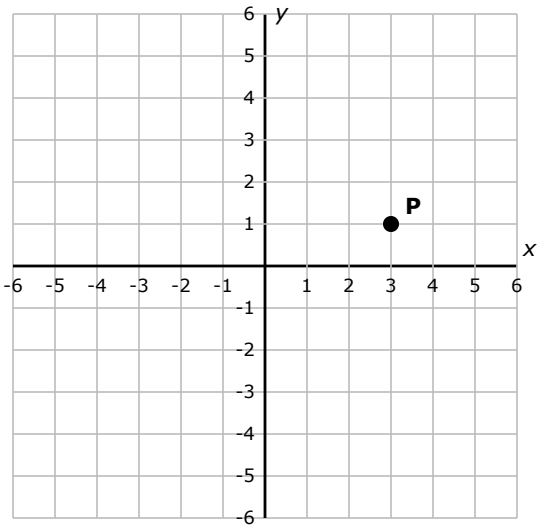
(D) 88

Question 36 refers to the following information.

> **Coordinate Grid**
>
> Point P is shown on the coordinate grid at (3, 1).
>
> Line m passes through point P. It is parallel to the line $2x - 3y = 9$.

36

Select the point where line m crosses the y-axis.



Mark the point on the grid, then write it here: (_____ , _____)

37

An accountant is comparing four small businesses that each lost money in March. The owners reported their profits for the month in thousands of dollars, written in different forms. A negative profit means a loss.

Profit in March

Business	Profit (thousands of dollars)
Florist	–2 3/8
Print shop	–9/4
Bakery	–2.4
Repair shop	–2.3

Drag each business into the box that shows where its profit falls when the four profits are put in order from least to greatest.

Write the letter of the box each item belongs in.

A Least	**B** 2nd	**C** 3rd	**D** Greatest

_____ Florist

_____ Print shop

_____ Bakery

_____ Repair shop

38

Which expression is equivalent to $(x^2 - 4x)/(x^2 - 16)$ for $x \neq 4$ and $x \neq -4$?

(A) $x/(x + 4)$

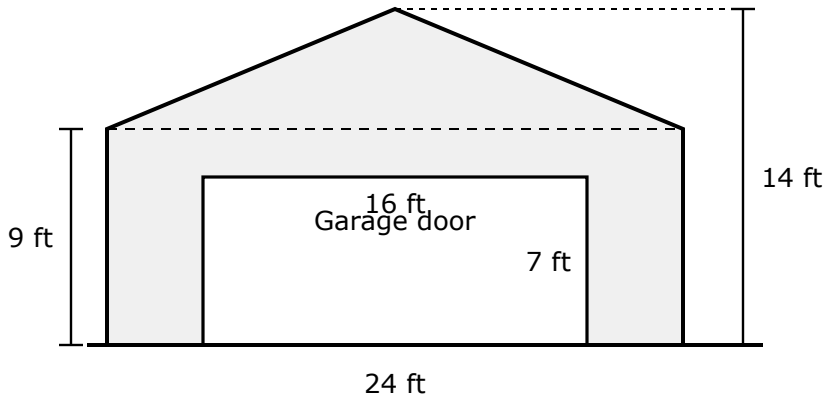
(B) $x/(x - 4)$

(C) $1/(x + 4)$

(D) $x/4$

39

Rafael is painting the front wall of a garage, shown below. The wall is a rectangle with a triangle on top. He will not paint the garage door.



How many square feet of the wall will Rafael paint?

(A) 104
(B) 164
(C) 224
(D) 272

40

A grocery store sells almonds for $9 a pound and cashews for $15 a pound. The manager mixes 12 pounds of cashews with some almonds and sells the mix for $11 a pound. The mix brings in the same total amount of money as the almonds and cashews would if they were sold separately.

How many pounds of almonds are in the mix?

Answer: _____ pounds

41

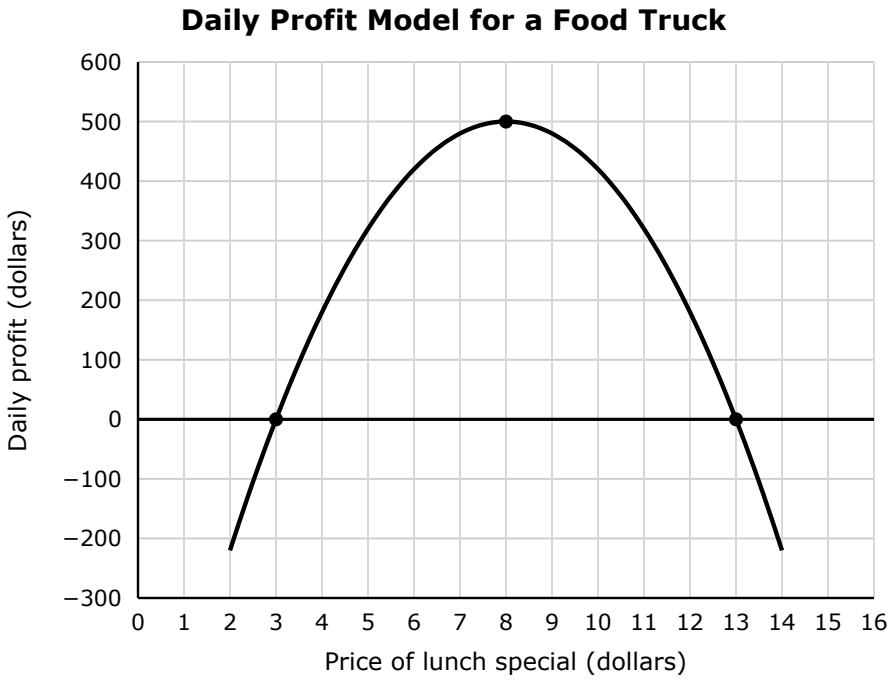
A drawer holds 12 AA batteries that all look alike, but 3 of them are dead. Lena takes 2 batteries from the drawer at random, one after the other, without putting the first one back.

What is the probability that both batteries Lena takes are dead?

(A) 1/22
(B) 1/16
(C) 1/4
(D) 19/44

42

The owner of a food truck made a model of the truck's daily profit when the lunch special sells for different prices. The graph of the model is shown.



Which statement about the model is true?

(A) The profit increases as the price goes up from $8 to $12.

(B) The truck makes a profit at every price from $2 to $14.

(C) The greatest daily profit the model shows is $8.

(D) The truck breaks even (a profit of $0) at prices of $3 and $13.

43

A cleaning crew mixes floor cleaner using 1 part concentrate to 7 parts water. Ahmed needs to make 2 gallons of the mixed cleaner. There are 128 fluid ounces in 1 gallon.

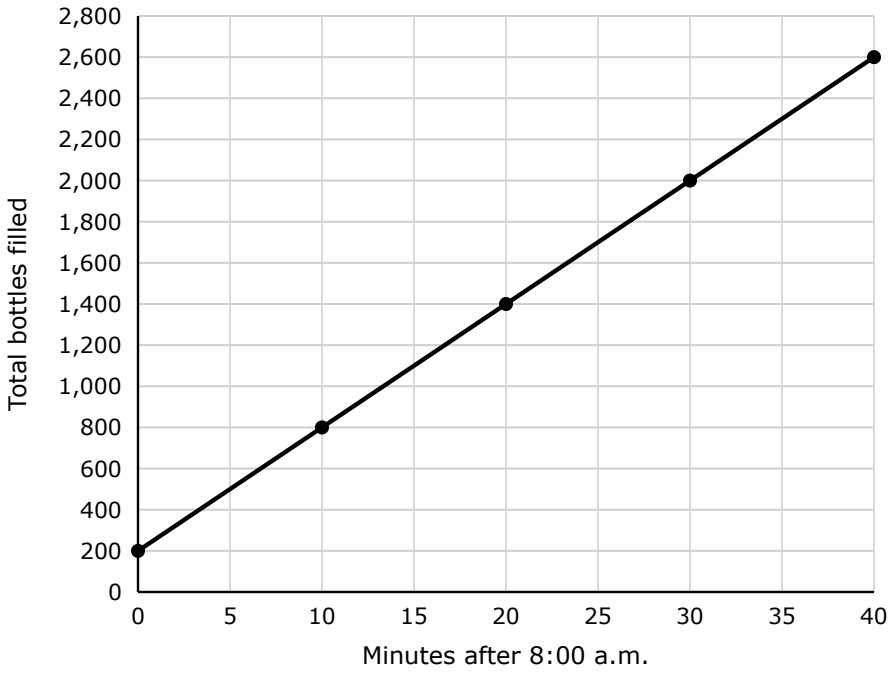
How many fluid ounces of concentrate does Ahmed need?

Answer: _____ fluid ounces

Question 44 refers to the following information.

> **Two Bottling Machines**
>
> A juice plant runs two bottling machines at steady rates. Each machine keeps a running count of the bottles it has filled since the start of the day. The graph shows the count for Machine A, m minutes after 8:00 a.m.

Machine A: Bottles Filled Since the Start of the Day



For Machine B, the count, b, m minutes after 8:00 a.m. is given by the equation b = 55m + 360.

44

Use the graph and the equation to complete the sentences.

Machine A fills **[1]** bottles per minute.
Machine B fills **[2]** bottles per minute.
The machine that fills bottles at the greater rate is Machine **[3]**.
At 8:30 a.m., Machine A has filled **[4]** Machine B.

For each numbered blank, choose the option that correctly completes the sentence.

Blank 1: (A) 200 (B) 60 (C) 80

Blank 2: (A) 360 (B) 55 (C) 415

Blank 3: (A) A (B) B

Blank 4: (A) more bottles than (B) the same number of bottles as (C) fewer bottles than

Question 45 refers to the following information.

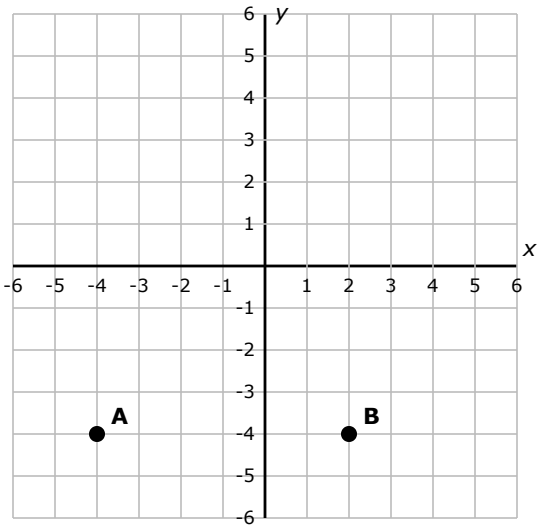
Coordinate Grid

Points A and B are shown on the coordinate grid at (−4, −4) and (2, −4). They are two corners of rectangle ABCD.

Point C is directly above point B, and point D is directly above point A. The perimeter of rectangle ABCD is 22 units.

45

Select the location of point C on the coordinate grid.



Mark the point on the grid, then write it here: (_____ , _____)

46

A community theater uses the model R = p(400 – 20p) to estimate the money it takes in, R, in dollars, from one show when each ticket costs p dollars.

The theater wants to take in $1,800 from one show. According to the model, which ticket prices would do this, to the nearest cent?

(A) $3.68 and $16.32

(B) $6.84 and $13.16

(C) $10.00 only

(D) $23.78 only

Answer sheet

Fill in a circle, or write your answer on the line.

1 Ⓐ Ⓑ Ⓒ Ⓓ
2 Ⓐ Ⓑ Ⓒ Ⓓ
3 _____
4 Ⓐ Ⓑ Ⓒ Ⓓ
5 Ⓐ Ⓑ Ⓒ Ⓓ
6 Ⓐ Ⓑ Ⓒ Ⓓ
7 Ⓐ Ⓑ Ⓒ Ⓓ
8 Ⓐ Ⓑ Ⓒ Ⓓ
9 _____
10 _____
11 Ⓐ Ⓑ Ⓒ Ⓓ
12 Ⓐ Ⓑ Ⓒ Ⓓ
13 _____
14 _____
15 Ⓐ Ⓑ Ⓒ Ⓓ
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Answer key

Every explanation is in the Detailed Answer Key, free with a Test Ninjas account. Online, the test shows each explanation as you go.

#	Answer	Content area
1	C. 7/12	Data, statistics and probability
2	B. 14°F	Algebra and functions
3	4 hours	Algebra and functions
4	C. 25%	Numbers, ratios and percents
5	D. $54x^7y^5$	Algebra and functions
6	D. 8s + 14j – 40	Algebra and functions
7	A. $0.05	Numbers, ratios and percents
8	B. $m \leq 300$	Algebra and functions
9	204 square feet	Geometry and measurement
10	13 hours	Algebra and functions
11	C. 452.16 cubic feet	Geometry and measurement
12	D. y = 2x + 5.50	Algebra and functions
13	40 → C (Mode); 20 → D (Range); 38 → B (Median); 36 → A (Mean)	Data, statistics and probability
14	(5, 5)	Algebra and functions
15	B. 12 feet	Geometry and measurement
16	A. 8 feet	Algebra and functions
17	$ 23.20	Numbers, ratios and percents
18	D. The amount Marisol owes goes down by $150 each month.	Algebra and functions
19	(x – 2)(x + 8) → D ($x^2 + 6x – 16$); (x + 4)(x – 4) → A ($x^2 – 16$); (4 – x)(4 – x) → B ($x^2 – 8x + 16$); (x + 2)(x – 8) → C ($x^2 – 6x – 16$); (x – 4)(x – 4) → B ($x^2 – 8x + 16$)	Algebra and functions
20	D. About 20 of the employees commute more than 35 minutes.	Data, statistics and probability
21	$ 3,000	Algebra and functions
22	C. About 776	Geometry and measurement
23	B. {(–1, 4), (0, 4), (1, 4), (2, 4)}	Algebra and functions
24	D. 42 miles	Numbers, ratios and percents
25	A. n = 100(P – s)/c	Algebra and functions
26	1: B. a negative association; 2: C. $12,000; 3: B. $2,000	Data, statistics and probability
27	12.5 amps	Algebra and functions

#	Answer	Content area
28	B. 1,692	Geometry and measurement
29	C. $-3 \leq 2x + 1 < 7$	Algebra and functions
30	A. 8×10^5	Numbers, ratios and percents
31	A. $y = -(3/2)x + 4$	Algebra and functions
32	C. Both halls charge $2,000 for a party of 75 guests.	Algebra and functions
33	7 inches	Geometry and measurement
34	$g(-3) = 34$	Algebra and functions
35	C. 80.8	Data, statistics and probability
36	(0, -1)	Algebra and functions
37	Florist → B (2nd); Print shop → D (Greatest); Bakery → A (Least); Repair shop → C (3rd)	Numbers, ratios and percents
38	A. $x/(x + 4)$	Algebra and functions
39	B. 164	Geometry and measurement
40	24 pounds	Algebra and functions
41	A. 1/22	Data, statistics and probability
42	D. The truck breaks even (a profit of $0) at prices of $3 and $13.	Algebra and functions
43	32 fluid ounces	Numbers, ratios and percents
44	1: B. 60; 2: B. 55; 3: A. A; 4: C. fewer bottles than	Algebra and functions
45	(2, 1)	Geometry and measurement
46	B. $6.84 and $13.16	Algebra and functions

Scoring table

Count your correct answers in each content area. GED Testing Service does not publish how a number of correct answers converts to its 100–200 scale, so this practice test does not give a GED score. For a predicted score, take GED Ready, the official practice test.

Content area	Questions	Your correct	Out of
Numbers, ratios and percents	4, 7, 17, 24, 30, 37, 43		7
Geometry and measurement	9, 11, 15, 22, 28, 33, 39, 45		8
Data, statistics and probability	1, 13, 20, 26, 35, 41		6
Algebra and functions	2, 3, 5, 6, 8, 10, 12, 14, 16, 18, 19, 21, 23, 25, 27, 29, 31, 32, 34, 36, 38, 40, 42, 44, 46		25
Total			**46**