

KINDERGARTEN

Assessment Test Math K 1 MID YEAR

Count to 100

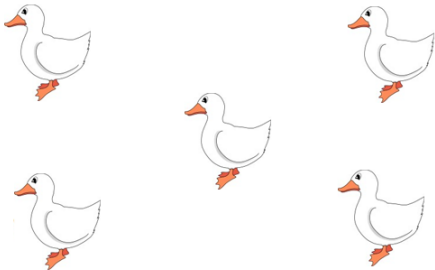
Numbers from 0 to 20

Beginning Addition

Compare Objects and Numbers

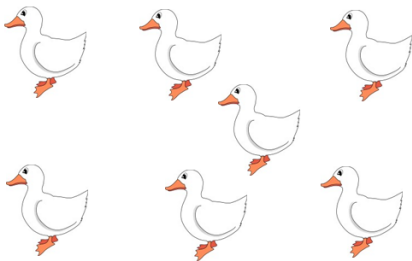
Questions:

1.



How many ducks are in the picture? Available answers: 2; 6; 5. Answer: 5.

2.



How many ducks are in the picture? Available answers: 1; 5; 7. Answer: 7.

3. How do you spell the number 1? Available answers: one; two; four. Answer: one.

4. What is the number that matches the word, three? Available answers: 1; 3; 5. Answer: 3.

5. $2 + 2 = ?$ Available answers: 4; 7; 6. Answer: 4.

6. $3 + 4 = ?$ Available answers: 4; 5; 7. Answer: 7.

7. $4 + 1 = ?$ Available answers: 4; 3; 5. Answer: 5.

8. $3 + 3 = ?$ Available answers: 4; 2; 6. Answer: 6.

9. What number is larger, 4 or 6? Available answers: 4; 6. Answer: 6.

10. What number is smaller, 2 or 7? Available answers: 2; 7. Answer: 2.

FIRST GRADE

Assessment Test Math 1 1 MID YEAR

Count to 120

Basic Addition and Subtraction

Basic Addition and Subtraction Word Problems

Basic Addition with Algebraic Concepts

Basic Subtraction with Algebraic Concepts

Understanding Tens and Ones

Count by Twos, Fives, and Tens

Addition of Two-Digit Numbers

Greater Than, Less Than, or Equal Comparisons

Addition of Two-Digit Numbers

Subtraction of Two-Digit Numbers

Questions:

1. $6 + 3 = ?$ Available answers: 7; 6; 9. Answer: 9.
2. $7 - 2 = ?$ Available answers: 4; 8; 5. Answer: 5.
3. If there are 3 fish swimming and 5 join them, how many total fish are swimming? Available answers: 6; 8; 10. Answer: 8.
4. What should X be in $3 + X = 6$? Available answers: 3; 5; 2. Answer: 3.
5. In the number 25, which number is in the ones column? Available answers: 2; 5. Answer: 5.
6. How many groups of tens are in the number, 25? Available answers: 2; 3; 5. Answer: 2.
7. If counting by twos, what is the next number after the number 6? Available answers: 4; 7; 8. Answer: 8.
8. Which symbol is correct to compare 4 and 6? Available answers: $>$; $<$; $=$. Answer: $<$.
9. What is $51 + 8$? Available answers: 46; 48; 59. Answer: 59.
10. What is $10 - 7$? Available answers: 3; 5; 8. Answer: 3.

SECOND GRADE

Assessment Test Math 2 1 MID YEAR

Addition and Subtraction Word Problems

Place Value for Multi-Digit Arithmetic

Addition of Two and Three Digit Numbers with Carrying

Questions:

1. If there are four (4) apples in a box and Sue adds four (4) more, how many total apples are in the box? Available answers: 5; 6; 8. Answer: 8.
2. If there are twelve (12) apples in a box and Sue adds fourteen (14) more, how many total apples are in the box? Available answers: 12; 18; 26. Answer: 26.
3. If there are twenty (20) apples in a box and Mike takes eighth (8) away, how many apples are left in the box? Available answers: 10; 12; 16. Answer: 12.
4. $4 + 8 + 6 = ?$ Available answers: 14; 16; 18. Answer: 18.
5. $10 + 5 + 4 = ?$ Available answers: 13; 19; 22. Answer: 19.
6. $17 - 5 - 3 = ?$ Available answers: 9; 12; 15. Answer: 9.
7. Is the number 5 an even number or odd number? Available answers: even; odd. Answer: odd.
8. What is the place value of 3 in the number 324? Available answers: hundreds; tens; ones. Answer: hundreds.
9. $26 + 37 = ?$ Available answers: 46; 57; 63. Answer: 63.
10. $487 + 145 = ?$ Available answers: 342; 552; 632. Answer: 632.

THIRD GRADE

Assessment Test Math 3 1 MID YEAR

Multiplication of One and Two Digit Numbers

Division of One and Two Digit Numbers

Multiplication and Division Algebraic Thinking

Greatest Common Factors

Commutative Properties of Multiplication

Questions:

1. $2 \times 5 = ?$ Available answers: 10; 7; 15. Answer: 10.
2. $5 \times 5 = ?$ Available answers: 20; 10; 25. Answer: 25.
3. $6 \times 7 = ?$ Available answers: 42; 49; 63. Answer: 42.
4. $12 \div 4 = ?$ Available answers: 44; 48; 52. Answer: 48.
5. $24 \div 3 = ?$ Available answers: 4; 8; 9. Answer: 8.
6. $76 \div 3 = ?$ Available answers: 25 R1; 32 R3; 21 R2 Answer: 25 R1.
7. Solve for N: $5 \times N = 45$. Available answers: 8; 6; 9. Answer: 9.
8. What is the Greatest Common Factor of 18 and 21? Available answers: 3; 5; 7. Answer: 3.
9. Solve for N: $63 \div N = 7$. Available Answers: 7; 9; 12. Answer: 9.
10. $10 \times 3 \times 5 = ?$ Available answers: 18; 80; 150. Answer: 150.

FOURTH GRADE

Assessment Test Math 4 1 MID YEAR

Multiplication and Division Word Problems

Long Multiplication

Long Division with Remainders

Place Value of Whole Numbers and Decimal Numbers

Write Numbers in Expanded Form

Equivalent Fractions

Questions:

1. Tom delivers 23 newspapers 3 times a week. How many newspapers does he deliver each week? Available answers: 56; 77; 69. Answer: 69.
2. John runs 2 miles 3 times per week, and bikes 5 miles 2 times per week. How many total miles does he workout each week? Available answers: 16; 24; 18. Answer: 16.
3. What are all of the factors for the number 20? Available answers: 2, 4, 5, and 10; 1, 2, 4, 5, 10 and 20; 4 and 5. Answer: 1, 2, 4, 5, 10 and 20.
4. What is the next number in this sequence: 5, 4, 3, 1, 5, 4, 3, 1, 5, 4, 3, 1, 5, 4. Available answers: 3; 4; 1. Answer: 3.
5. How do you write 605,328 in word form? Available answers: Six hundred and twenty eight; Six hundred three twenty eight; Six hundred and five thousand, three hundred and twenty eight. Answer: Six hundred and five thousand, three hundred and twenty eight.
6. Which symbol would be used to compare the numbers 3 and 7? Available answers: > ; < ; = . Answer: < .
7. $348 \times 39 = ?$ Available answers: 13,572; 14,340; 9,874. Answer: 13,572.
8. $7435 \div 3 = ?$ Available answers: 3645 R2; 2432 R 4; 2478 R1. Answer: 2478 R1.
9. $5472 \div 38 = ?$ Available answers: 204; 144; 274. Answer: 144.
10. Which fraction is equivalent to $\frac{1}{2}$? Available answers: $\frac{5}{6}$; $\frac{7}{8}$; $\frac{4}{8}$. Answer: $\frac{4}{8}$.

FIFTH GRADE

Assessment Test Math 5 1 MID YEAR

Use Order of Operations to Solve Equations

Practice Long Multiplication and Division

Practice Adding and Subtracting of Decimals

Practice Fraction Word Problems

Questions:

1. $(4 + 8) \times 12 = ?$ Available answers: 124; 132; 144. Answer: 144.
2. $8 \times (14 - 6) = ?$ Available answers: 48; 64; 72. Answer: 64.
3. Write an expression and solve “add 20 and 17, then multiply by 3”. Available answers: 125; 72; 111. Answer: 111.
4. What is the place value of 5 in the number 4,532? Available answers: thousands, hundreds, tens. Answer: hundreds.
5. $432 \times 8 = ?$ Available answers: 3,456; 5,454; 3,656. Answer: 3,456.
6. $15 \div 6 = ?$ Available answers: 2 with a remainder of 3; 3 with remainder of 5; 3. Answer: 2 with a remainder of 3.
7. $56 \div 7 = ?$ Available answers: 8; 6 with a remainder of 1; 6 with a remainder of 2. Answer: 8.
8. $11.05 + 7.25 = ?$ Available answers: 14.4; 16.2; 18.3. Answer: 18.3.
9. $22.3 - 4.2 = ?$ Available answers: 16.2; 18.1; 19.4. Answer: 18.1
10. A piece of wood measures $4 \frac{1}{2}$ feet and needs to be cut in thirds. What is the length of each piece of wood? Available answers: $1 \frac{1}{2}$ feet; 1 foot; $1 \frac{1}{4}$ feet. Answer: $1 \frac{1}{2}$ feet.

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SIXTH GRADE

Assessment Test Math 6 1 MID YEAR

Ratios and Proportions

Ratios and Real World Problems

Percents

Coordinate Plane and Plotting Points

Positive and Negative Numbers

Writing and Evaluating Expressions

Questions:

1. To make ice tea, you need 6 tea bags for every 10 cups of water. If you have 18 tea bags, how many cups of water do you need? Available answers: 30; 24; 8. Answer: 30.
2. What is 30% off \$60? Available answers: \$42.00; \$20.00; \$25.50. Answer: \$42.00.
3. What is 20% off \$100? Available answers: \$65.00; \$80.00; \$75.00. Answer: \$80.00.
4. $2/6 \div 1/6 = ?$ Available answers: $1/2$; 3; 2. Answer: 2.
5. $3 \frac{5}{6} \div 1/2 = ?$ Available answers: $5 \frac{5}{6}$; $6 \frac{2}{3}$; $7 \frac{2}{3}$. Answer: $7 \frac{2}{3}$.
6. $315 \times 23 = ?$ Available answers: 7,245; 338; 92. Answer: 7,245.
7. $7.56 + 7.9 = ?$ Available answers: 12.36; 14.46; 15.46. Answer: 15.46.
8. $1,607.14 - 3,021.05 = ?$ Available answers: 1,413.91; 4,155.22. Answer: 1,413.91.
9. On a coordinate plane, the coordinates (2, 2) would fall in which Quadrant? Available answers: I; II; III; IV. Answer: I.
10. Kevin's age is three years more than two times Janes age. The sum of their ages if 39. How old are Kevin and Jane? Available answers: Jane is 12 and Kevin is 27; Jane is 14 and Kevin is 26; Jane is 13 and Kevin is 32. Answer: Jane is 12 and Kevin is 27. (day 81 example).

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SEVENTH GRADE

Assessment Test Math 7 1 MID YEAR

Ratios and Proportions

Proportional Relationships

Multiplying and Dividing Real Numbers and Integers

The Distributed Property

Simple One Variable Equations

Write Simple Equations for Unknown Values to Solve Real Word Problems

Write an Inequality from a Word Problem

Questions:

1. John has $\frac{3}{4}$ of a quart of orange juice and needs to fill it equally in cups that hold $\frac{1}{10}$ of a quart. How many cups can he fill? Available answers: 4; 6; 7. Answer: 7.
2. If something cost \$125 and it is on sale for 40% off, what is the final sale price? Available answers: \$65; \$70; \$75. Answer: \$75.
3. If something cost \$25 and it is on sale for 5% off, what is the final sale price? Available answers: \$22.50; \$23.75; \$24.25. Answer: \$23.75.
4. $-4 - (-4) = ?$ Available answers: 4; 0; -4. Answer: 0.
5. $25 + (-12) = ?$ Available answers: 13; 12; -12. Answer: 13.
6. $(-72) \times 5 = ?$ Available answers: -60; -360; -136. Answer: -360.
7. $(-45) \div (-9) = ?$ Available answers: -5; 0; 5. Answer: 5.
8. Use the distributed property to solve, $2(5 + 3)$. Available answers: 16; 14; 18. Answer: 18.
9. Solve for x: $14x + 25 = 32$. Available answers: $\frac{1}{2}$; 2; 12. Answer: $\frac{1}{2}$.
10. If a widget factory has a fixed operating cost of \$3,600 per day plus a cost of \$1.40 per widget produced. If a widget sells for \$4.20, what is the least number of widgets that must be sold per day to make a profit? Available answer: 1,286; 978; 1,159. Answer: 1,286. (day 76 example)

EIGHTH GRADE

Assessment Test Math 8 1 MID YEAR

Rational and Irrational Numbers

Integers and Exponents

Exponents and Scientific Notation

One Variable Linear Equations

Solve Linear Equations by Graphing

Two Variable Linear Equations

Questions:

1. How do you write 0.03 as a fraction? Available answers: $1/3$; $3/10$; $3/100$. Answer: $3/100$.
2. Is $\sqrt{2}$ rational or irrational number? Available answers: Rational; Irrational. Answer: Irrational.
3. Is 10 a rational or irrational number: Available answers: Rational; Irrational. answer: Rational.
4. Simply $\sqrt{72}$. Available answers: $8\sqrt{2}$; $8\sqrt{6}$; $6\sqrt{2}$. Answer: $6\sqrt{2}$.
5. What is 10^3 as a number? Available answers: 30; $3/100$; 1,000. answer: 1,000.
6. What is 25,300,000,000,000 written in scientific notation? Available answers: 253×10^{11} ; 2.53×10^{13} ; 25×3^{10} . Answer: 2.53×10^{13} .
7. Is $2/10$ and $6/22$ equivalent? Answers: yes; no. answer: no.
8. $x + (-5) = 37$ Available answers: 32; -57; -42. Answer: -42.
9. $4 - 3x = 2x + 3$. Available answers: -5; $1/2$; $1/5$. Answer: $1/5$.
10. $3x + 4y = 15$. Available answers: $y = -3/4$ and $x = 1/3 + 5y$; $y = -3/4x + 15/4$ and $x = -4/3y + 5$; $y = -3$ and $x = 15$. Answer: $y = -3/4x + 15/4$ and $x = -4/3y + 5$.

NINTH GRADE

Assessment Test Math 9 1 MID YEAR

Rational Exponents

Rational and Irrational Numbers

Complex Numbers

Solve Quadratic Equations

Solve Polynomial Identities

Using Matrices to Solve Equations

Parts of Expressions

Rewrite Expressions in Different Forms

Advanced Linear Equations

Graph Linear Functions and Inequalities

Questions:

1. $16^{1/2} = ?$ Available answers: $1/2$; 4; 2. Answer: 4.
2. Simply $4\sqrt{16} + 8\sqrt{16}$. Available answers: Simplify $12\sqrt{16}$; $12\sqrt{4}$; $4\sqrt{16}$. Answer: $12\sqrt{16}$.
3. Simply $\sqrt{12} \times \sqrt{3}$. Available answers: $\sqrt{15}$; $12\sqrt{3}$; 6. Answer: 6
4. Is $\sqrt{64}$ a real or imaginary number? Available answers: Real; Imaginary. Answer: Real.
5. Is $\sqrt{-4}$ a real or imaginary number? Available answers: Real; Imaginary. Answer: Imaginary.
6. Is $\sqrt{2}$ a rational or irrational number? Available answers: rational; irrational. Answer: irrational.
7. Is $3/2$ a rational or irrational number: Available answers: rational; irrational. Answer: rational.
8. $(3 + 2i) + (-1 + i) = ?$ Available answers: $2 + 3i$; $-4 + 3i$; $-2 - i$. Answer: $2 + 3i$.
9. $(8 - 3i) + (5 - 6i) = ?$ Available answers: $11 - 11i$; $13 - 9i$; $3 - 9i$. Answer: $13 - 9i$.
10. Rewrite as a complex number, $x^2 + 9$. Available answers: $x + 3i$; $x + \sqrt{3}$; $(x + 3i)(x - 3i)$ Answer: $(x + 3i)(x - 3i)$.

TENTH GRADE

Assessment Test Math 10 1 MID YEAR

Points, Lines, and Planes

Radius, Area, Circumference and Other Properties of Circles

Transformations of Shapes on the Coordinate Plane

Transformations and Rigid Motion

Translating Circles

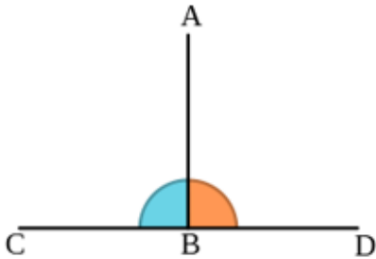
Parallel Lines and Corresponding Angles

Geometric Constructions

Similar and Congruent Triangles

Questions:

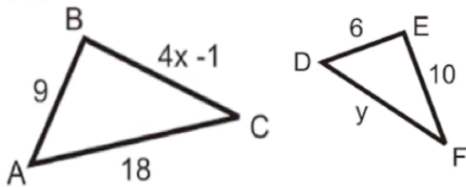
1. A line is perpendicular to another one if the two lines intersect at? Available answers: parallel lines; intersecting lines; right angles. Answer: right angles.



2. In the image above, line AB is perpendicular to line? Available answers: BD; AB; AC. Answer: BD.
3. Do parallel lines intersect? Available answers: yes; no. Answer: no.
4. The outside edge of a circle is called the? Available answers: circumference; diameter; radius. Answer: circumference.
5. If a shape moves upwards, in one direction on a plane, what type of transformation is this? Available answer: translation; rotation; reflection. Answer: translation.
6. If a shape is turned 30 degrees on a plane, what type of transformation is this? Available answers: translation, rotation; reflection. Answer: rotation.
7. A right triangle is an angle that has an angle with? 45 degrees; 90 degrees; 180 degrees. Answer: 90 degrees.
8. An intersecting line with two parallel lines will create angles that? Available answers: have 90 degrees; correspond; are not equal. Answer: correspond.



9. Solve for x and y in the image above. Available answers: $x = 13$ and $y = 115$; $x = 25$ and $y = 85$; $x = 20$ and $y = 124$. Answer: $x = 13$ and $y = 115$. (day 32 example).



10. Given the triangles are similar in the image above, solve for x and y . Available answers: x is 15 and y is 12; x is 13 and y is 16; x is 11 and y is 14. Answer: x is 15 and y is 12. (Day 62 example)

ELEVENTH GRADE

Assessment Test Math 11 1 MID YEAR

Histograms

Categorical Data

Quantitative and Qualitative Data

Use Data to Compare the Median

Use Data to Calculate the Mean

Modeling Linear Data

Fit a Linear Function to a Scatter Plot

Point of Sale Statistics

Building Statistical Models

Assumptions in Statistical Modeling

Analyze and Evaluate Surveys and Data

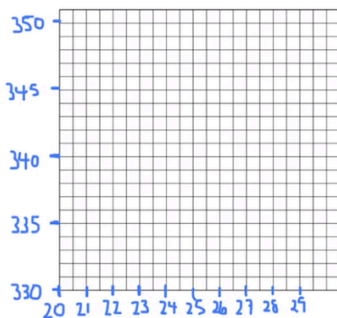
Margin of Error

Compare Data

Questions:

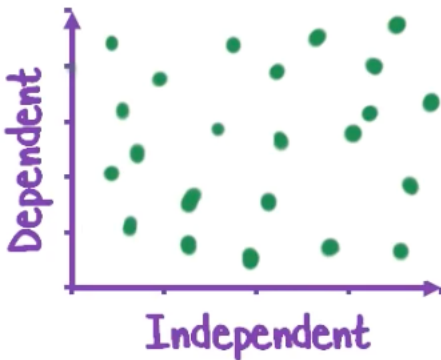
1. A scatter plot can be used to show? Available answers: the relationship between two variables; categorical data; groups of qualitative data. Answer: the relationship between two variables.
2. Scatter plots do not have? Available answers: an x and y axis; a line connecting the data points; bars showing categorical data. Answer: bars showing categorical data.
3. What is the median number among these numbers: 11, 12, 14, 17, 18, 12, 11, 19, 11, 10? Available answers: 12; 15; 17.25. Answer: 12.
4. What is the median number among these numbers: 2, 4, 3, 6, 8, 2, 9? Available answers: 2; 4; 9. Answer: 4.

A marketing firm wishes to find a function that relates the sales S of a product and A , the amount spent on advertising.



A	S
20	335
22	339
22.5	338
24	343
24	341
27	350
28.3	351

5. Find a linear model for the data in the image above by graphing the data. What is the slope? Available answers: 2; 4; 5. Answer: 2. (Day 35 example).



6. What type of data does the scatter plot above show? Available answers: linear; nonlinear.
Answer: nonlinear.



7. What type of data does the scatter plot above show? Available answers: linear; nonlinear.
Answer: linear.
8. A positive correlation is? Available answers: a graph showing data moving together in a positive direction; a graph showing data moving in opposite directions; a graph showing data moving in a negative direction. Answer: a graph showing data moving together in a positive direction.
9. What are three ways you could take a sample of survey data to analyze? Available answers: Simple Random Sample, Systematic Random Sample & Stratified Random Sample; Histogram, Scatter Plot & Bar Chart; Quantitative, Qualitative & Measured. Answer: Simple Random Sample, Systematic Random Sample & Stratified Random Sample.
10. What would you use to compare two columns of survey data? Available answers: Excel; Probability; Scatter Plot. Available answers: Excel.

TWELFTH GRADE

Assessment Test Math 12 1 MID YEAR

Functions

Function Notation

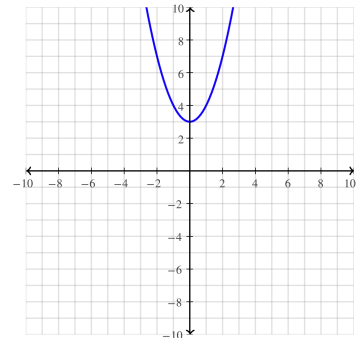
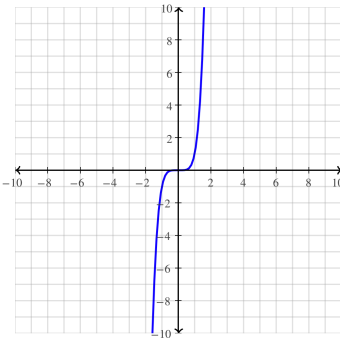
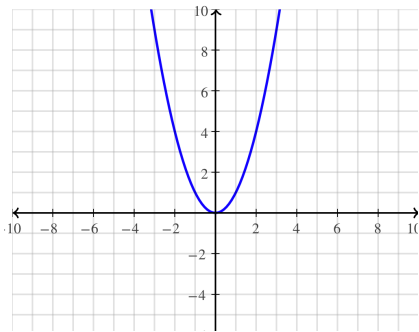
Average Rate of Change on a Graph

Square Root and Cube Functions

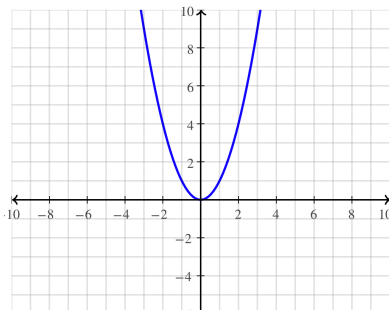
Solve Quadratic Equations by Factoring

Questions:

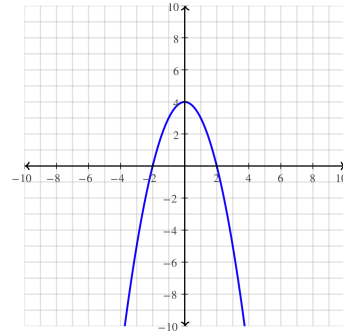
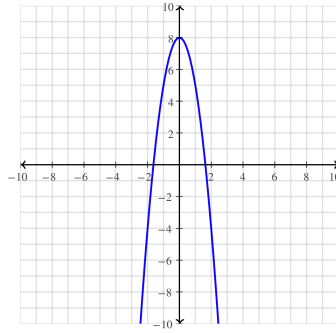
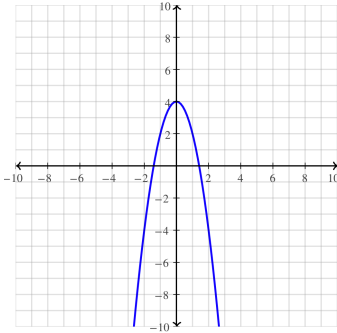
1. Solve for f : $y = f(x)$. Available answers: $f = fx$; $f = y/x$; $f = y/f$. Answer: $f = y/x$.
2. Solve for x : $y = f(x)$. Available answers: $x = y/f$; $x = fx$; $x = y/x$. Answer: $x = y/f$.
3. Graph $f(x) = x^2$. Available answers:



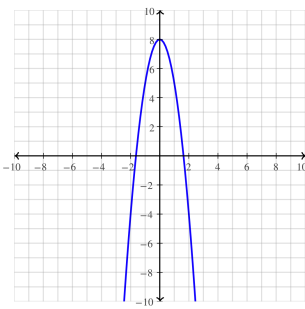
Answer:



4. Graph $f(x) = -3x^2 + 8$. Available answers:



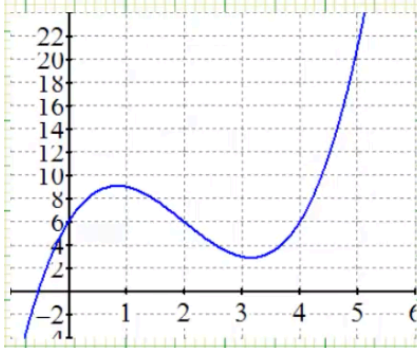
Answer:



5. Find $f(4)$ in $f(x) = x^2 + x$. Available answers: 12; 16; 20. Answer: 20.

6. Find $f(2)$ in $f(x) = 8x - 4x + 3$. Available answers: 28; 16; 11. Answer: 11

Use the graph to determine the average rate of change from $x = 0$ to $x = 1$ and from $x = 2$ to $x = 5$



Average Rate of Change
from $x = 0$ to $x = 1$

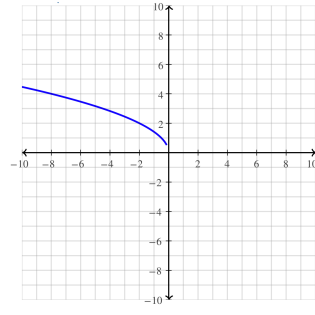
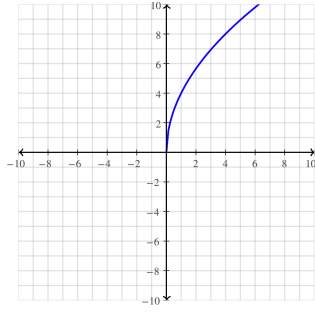
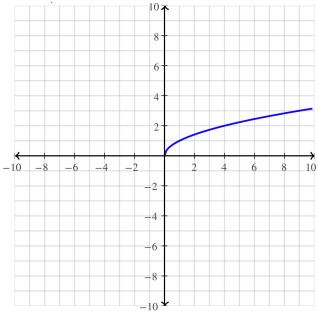
Average Rate of Change
from $x = 2$ to $x = 5$

7. Use the graph above to find the average rate of change from $x = 0$ to $x = 1$ and from $x = 2$ to $x = 5$. Available answers: The average rate of change from $x = 0$ to $x = 1$ is 4 and from $x = 2$ to $x = 5$ is 7; The average rate of change from $x = 0$ to $x = 1$ is 2 and from $x = 2$ to $x = 5$ is 6; The average rate of change from $x = 0$ to $x = 1$ is 3 and from $x = 2$ to $x = 5$ is 5.
Answer: The average rate of change from $x = 0$ to $x = 1$ is 3 and from $x = 2$ to $x = 5$ is 5.
(Day 20)

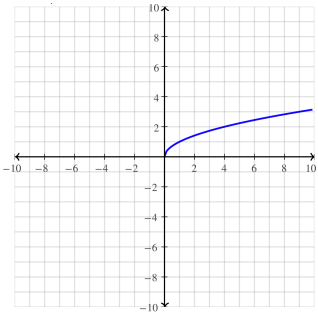
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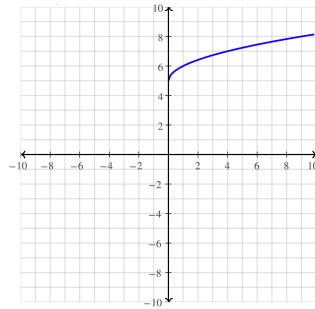
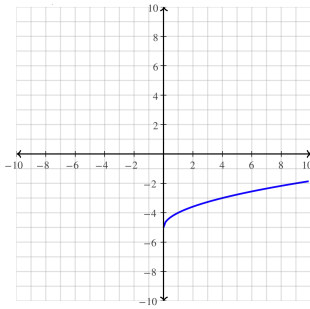
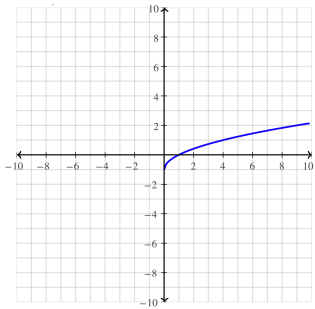
8. Graph $y = \sqrt{x}$. (Day 30 example) Available answers:



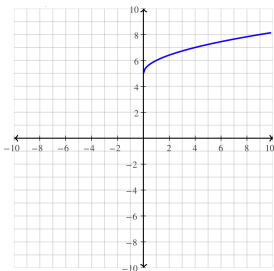
Answer:



9. Graph $y = \sqrt{x + 5}$. (Day 31 example) Available answers:



Answer:



10. Solve this quadratic equation by factoring: $x^2 - 9x + 14 = 0$. Available answers: $x = 2$ and $x = 7$; $x = 12$ and $x = 5$; $x = 2$ and $x = 5$. Answer: $x = 2$ and $x = 7$. (Day 40 example)