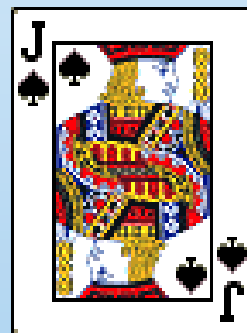
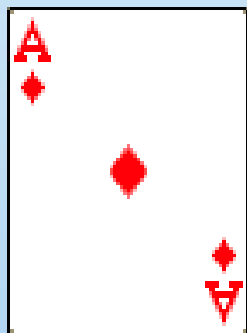
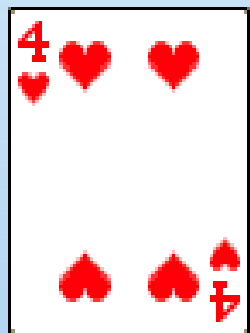


Day 74

1. Opener

- a) Solve: $5x^2 + 28x = 12$
- b) Does $y = x^2 - 2x - 7$ cross the x-axis once or twice?
- c) What's next?

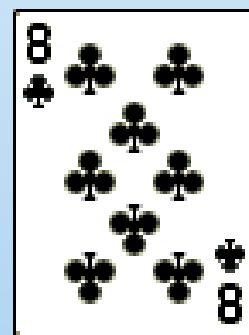
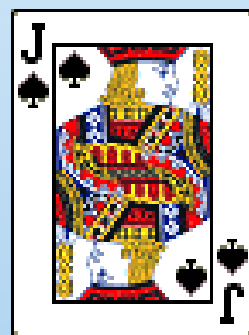
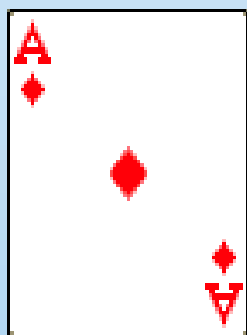
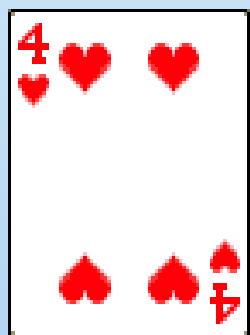


- d) What percent of Americans were farmers in 2001? 1901? 1801?

Day 74

1. Opener

- a) Solve: $5x^2 + 28x = 12$
- b) Does $y = x^2 - 2x - 7$ cross the x-axis once or twice?
- c) What's next?



- d) What percent of Americans were farmers in 2001? 1901? 1801?





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www.kylecassidy.com







Friday 4/3/9:

	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	AVG
Fourth	80	90	70	48	81	67	76	57	48							69
Sixth	57	100	48	62	57	76	81	76	33							66

2. Know Your Parabolas!

$$y = x^2 - 2x - 7$$

2. Know Your Parabolas!

$$y = ax^2 + bx + c$$

2. Know Your Parabolas!

$$\frac{-b}{2a}$$

2. Know Your Parabolas!

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

2. Know Your Parabolas!

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

2. Know Your Parabolas!

$$y = x^2 - 3x - 6$$

2. Know Your Parabolas!

$$y = 2x^2 - 2x + 7$$

2. Know Your Parabolas!

$$y = 4x^2 + 4x + 1$$

3. Classwork

pg. 466 // #1 - 15

4. Break

5. Show and Tell

6. Know Your Perfect Squares!

$$x^2 + 6x + \quad = (\quad)^2$$

6. Know Your Perfect Squares!

$$x^2 + 6x + \blacksquare$$

6. Know Your Perfect Squares!

$$x^2 + 6x + 9$$

6. Know Your Perfect Squares!

$$x^2 + 6x + \blacksquare = (\blacksquare)^2$$

6. Know Your Perfect Squares!

$$x^2 + 6x + \blacksquare = (x + 3)^2$$

6. Know Your Perfect Squares!

$$x^2 + 6x + 9 = (x + 3)^2$$

6. Know Your Perfect Squares!

$$x^2 - 10x + \blacksquare = (\blacksquare)^2$$

6. Know Your Perfect Squares!

$$x^2 - 10x + \blacksquare = (x - 5)^2$$

6. Know Your Perfect Squares!

$$x^2 - 10x + 25 = (x - 5)^2$$

6. Know Your Perfect Squares!

$$x^2 - 20x + \blacksquare = (\blacksquare)^2$$

6. Know Your Perfect Squares!

$$x^2 - 20x + \blacksquare = (x - 10)^2$$

6. Know Your Perfect Squares!

$$x^2 - 20x + 100 = (x - 10)^2$$

6. Know Your Perfect Squares!

$$x^2 + 6x + 9 = (x + 3)^2$$

$$x^2 - 10x + 25 = (x - 5)^2$$

$$x^2 - 20x + 100 = (x - 10)^2$$

7. Classwork

pg. 460 // #1 - 6

8. Homework

Practice

$$x^2 + 5x + 6 = 0$$

Challenge

Day 75

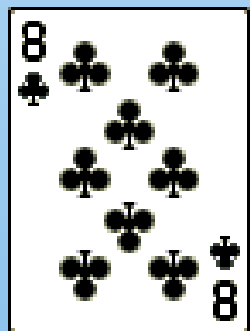
1. Opener

- a) Graph: $y = -x^2 + 4x + 6$
- b) Where does it cross the x-axis?

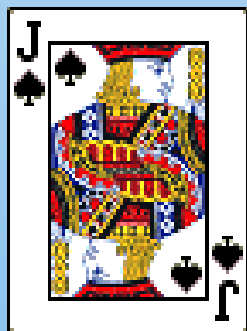
Fill in the blanks:

- c) $x^2 + 18x = (\quad)^2$
- d) $k^2 - 10k = (\quad)^2$
- e) $y^2 - 24y = (\quad)^2$
- f) $x^2 + 2x = (\quad)^2$

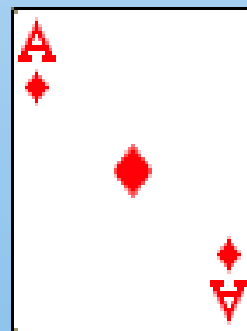
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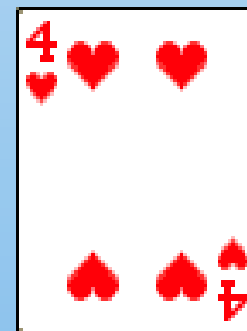
2



3

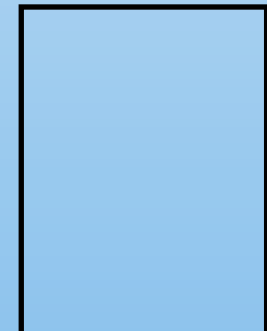


4



...

50



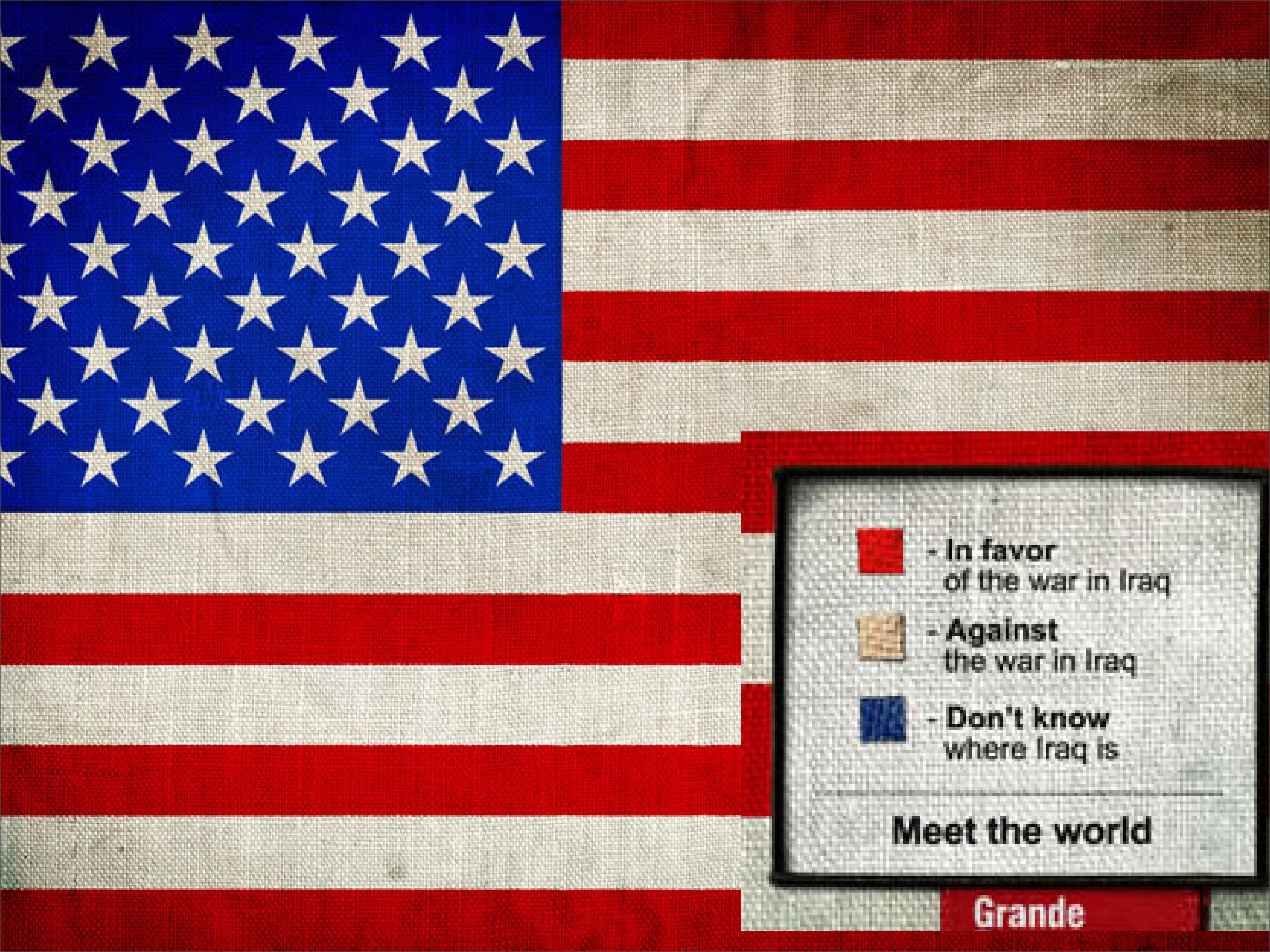
- g) How much did "Happy Birthday" cost in 1988?

8. Homework

Practice

$$x^2 + 5x + 6 = 0$$

Challenge



- In favor
of the war in Iraq



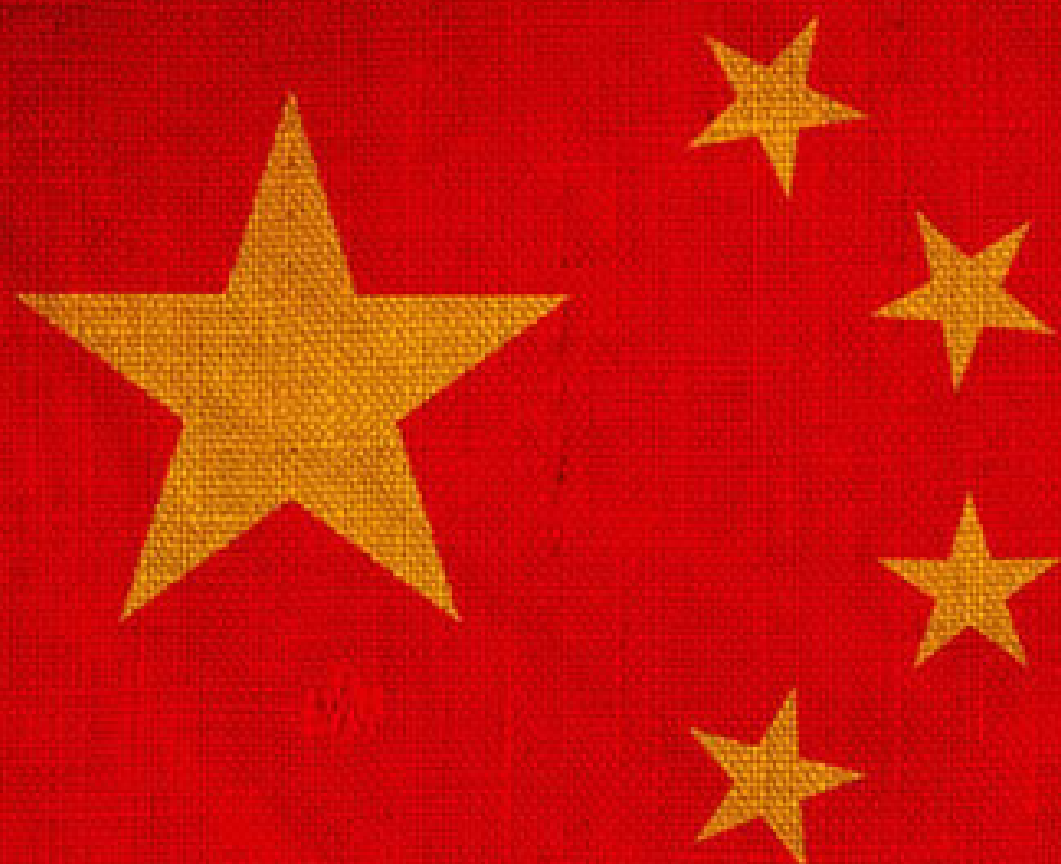
- Against
the war in Iraq



- Don't know
where Iraq is

Meet the world

Grande



- Working 14 year olds



- Studying 14 year olds

Meet the world

**Grande
Reportagem**
Magazine



- Banana export



- Coffee export



- Cocaine export

Meet the world

Grande



- Children who die before
completing **one year of age**



- Children who die before
completing the **third birthday**



- Children who
reach **maturity**

Meet the world

Grande



- People who live with less than 10 dollars a month



- People who live with less than 100 dollars a month



- People who live with less than 1000 dollars a month



- People who live with more than 100.000 dollars a month

Meet the world



- Oil consumption



- Oil production

Meet the world











Friday 4/3/9:

	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	AVG
Fourth	80	90	70	48	81	67	76	57	48							69
Sixth	57	100	48	62	57	76	81	76	33							66

Friday 4/17/9:

	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	AVG
Fourth	80	95	70	52	86	67	81	57	48							71
Sixth	57	100	48	67	57	81	86	81	33							68

2. Know Your Perfect Squares!

$$r^2 + 8r = 48$$

2. Know Your Perfect Squares!

$$r^2 + 8r \square = 48$$

2. Know Your Perfect Squares!

$$k^2 + 6k = 15$$

2. Know Your Perfect Squares!

$$k^2 + 6k \square = 15$$

3. Classwork

pg. 460 // #8 - 15

4. Break

5. Show and Tell

77

Which relation is a function?

- A** $\{(-1, 3), (-2, 6), (0, 0), (-2, -2)\}$
- B** $\{(-2, -2), (0, 0), (1, 1), (2, 2)\}$
- C** $\{(4, 0), (4, 1), (4, 2), (4, 3)\}$
- D** $\{(7, 4), (8, 8), (10, 8), (10, 10)\}$

11**Solve:**

$$3(x + 5) = 2x + 35$$

Step 1:

$$3x + 15 = 2x + 35$$

Step 2:

$$5x + 15 = 35$$

Step 3:

$$5x = 20$$

Step 4:

$$x = 4$$

Which is the first *incorrect* step in the solution shown above?

6. Basketball

A. Japanese

B. Chinese

C. Korean

6. Basketball



A. Japanese

B. Chinese

C. Korean

6. Basketball



A. Japanese

B. Chinese

C. Korean

57

What is the solution set of the quadratic equation $8x^2 + 2x + 1 = 0$?

A $\left\{-\frac{1}{2}, \frac{1}{4}\right\}$

B $\{-1 + \sqrt{2}, -1 - \sqrt{2}\}$

C $\left\{\frac{-1 + \sqrt{7}}{8}, \frac{-1 - \sqrt{7}}{8}\right\}$

D no real solution

18

Which of the following is a valid conclusion to the statement “If a student is a high school band member, then the student is a good musician”?

- A** All good musicians are high school band members.
- B** A student is a high school band member.
- C** All students are good musicians.
- D** All high school band members are good musicians.

6. Basketball



A. Japanese

B. Chinese

C. Korean

6. Basketball



A. Japanese

B. Chinese

C. Korean

8

Which equation is equivalent to $5x - 2(7x + 1) = 14x$?

A $-9x - 2 = 14x$

B $-9x + 1 = 14x$

C $-9x + 2 = 14x$

D $12x - 1 = 14x$

39

$$\frac{5x^3}{10x^7} =$$

A $2x^4$

B $\frac{1}{2x^4}$

C $\frac{1}{5x^4}$

D $\frac{x^4}{5}$

6. Basketball



A. Japanese

B. Chinese

C. Korean

6. Basketball



A. Japanese

B. Chinese

C. Korean

2

$$\sqrt{16} + \sqrt[3]{8} =$$

- A** 4
- B** 6
- C** 9
- D** 10

41

The sum of two binomials is $5x^2 - 6x$. If one of the binomials is $3x^2 - 2x$, what is the other binomial?

A $2x^2 - 4x$

B $2x^2 - 8x$

C $8x^2 + 4x$

D $8x^2 - 8x$

6. Basketball



A. Japanese

B. Chinese

C. Korean

6. Basketball



A. Japanese

B. Chinese

C. Korean

60 Which quadratic function, when graphed, has x -intercepts of 4 and -3 ?

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

B $y = (x + 3)(2x - 8)$

C $y = (3x - 1)(4x + 1)$

D $y = (3x + 1)(8x - 2)$

55

Which is one of the solutions to the equation $2x^2 - x - 4 = 0$?

A $\frac{1}{4} - \sqrt{33}$

B $-\frac{1}{4} + \sqrt{33}$

C $\frac{1 + \sqrt{33}}{4}$

D $\frac{-1 - \sqrt{33}}{4}$

6. Basketball



A. Japanese

B. Chinese

C. Korean

6. Basketball



A. Japanese

B. Chinese

C. Korean

61

How many times does the graph of $y = 2x^2 - 2x + 3$ intersect the x -axis?

A none

B one

C two

D three

23

What is the y -intercept of the graph of $4x + 2y = 12$?

A -4

B -2

C 6

D 12

6. Basketball



A. Japanese

B. Chinese

C. Korean

6. Basketball



A. Japanese

B. Chinese

C. Korean

33 Which equation represents a line that is

parallel to $y = -\frac{5}{4}x + 2$?

A $y = -\frac{5}{4}x + 1$

B $y = -\frac{4}{5}x + 2$

C $y = \frac{4}{5}x + 3$

D $y = \frac{5}{4}x + 4$

1

Is the equation $3(2x - 4) = -18$ equivalent to $6x - 12 = -18$?

- A** Yes, the equations are equivalent by the Associative Property of Multiplication.
- B** Yes, the equations are equivalent by the Commutative Property of Multiplication.
- C** Yes, the equations are equivalent by the Distributive Property of Multiplication over Addition.
- D** No, the equations are not equivalent.

6. Basketball



A. Japanese

B. Chinese

C. Korean

6. Basketball



A. Japanese

B. Chinese

C. Korean

56

Which statement *best* explains why there is no real solution to the quadratic equation $2x^2 + x + 7 = 0$?

- A** The value of $1^2 - 4 \cdot 2 \cdot 7$ is positive.
- B** The value of $1^2 - 4 \cdot 2 \cdot 7$ is equal to 0.
- C** The value of $1^2 - 4 \cdot 2 \cdot 7$ is negative.
- D** The value of $1^2 - 4 \cdot 2 \cdot 7$ is not a perfect square.

50

What are the solutions for the quadratic equation $x^2 + 6x = 16$?

A $-2, -8$

B $-2, 8$

C $2, -8$

D $2, 8$

6. Basketball



A. Japanese

B. Chinese

C. Korean

6. Basketball



A. Japanese

B. Chinese

C. Korean

15 The lengths of the sides of a triangle are y , $y + 1$, and 7 centimeters. If the perimeter is 56 centimeters, what is the value of y ?

A 24

B 25

C 31

D 32

6

What is the solution for this equation?

$$|2x - 3| = 5$$

A $x = -4$ or $x = 4$

B $x = -4$ or $x = 3$

C $x = -1$ or $x = 4$

D $x = -1$ or $x = 3$

6. Basketball



A. Japanese

B. Chinese

C. Korean

6. Basketball



A. Japanese

B. Chinese

C. Korean

9

Which equation is equivalent to $4(2 - 5x) = 6 - 3(1 - 3x)$?

A $8x = 5$

B $8x = 17$

C $29x = 5$

D $29x = 17$

22

When is this statement true?

The opposite of a number is less than the original number.

- A** This statement is never true.
- B** This statement is always true.
- C** This statement is true for positive numbers.
- D** This statement is true for negative numbers.

6. Basketball



A. Japanese

B. Chinese

C. Korean

6. Basketball



A. Japanese

B. Chinese

C. Korean