6th Grade Summer Math: **JUNE**

Circle the best answer for each question. Use the attached help pages at the back of the packet as needed.

1. Add.

$$456{,}045 + 87{,}192 + 7{,}129{,}987$$

- ○ 543,237
- ○ 7,673,224
- ○ 7,682,224
- ○ 7,673,215

2. Subtract.

$$7{,}095{,}983 - 893{,}794$$

- ○ 7,989,732
- ○ 6,202,234
- ○ 1,841,957
- ○ 6,202,189

3. Multiply.

$$7019 \times 27$$

- ○ 189,513
- ○ 182,494
- ○ 196,532
- ○ 140,380

4. Divide.

$$27{,}506 \div 34$$

- ○ 89
- ○ 808
- ○ 88
- ○ 809

5. Add.

$$873.945 + 45.04 + 94$$

- ○ 919.925
- ○ 928.385
- ○ 1,858.985
- ○ 1,012.985

6. Subtract.

$$86.9 - 14.57$$

- ○ 72.47
- ○ 72.33
- ○ 101.47
- ○ 71.33

7. Multiply.

$$0.89 \times 0.5$$

- ○ 4.45
- ○ 44.5
- ○ 0.445
- ○ 445

8. Divide.

$$6{,}789 \div 5$$

- ○ 1357.8
- ○ 1357.2
- ○ 1357.4
- ○ 1375.4

9. Add.

$$4\frac{1}{5}+2\frac{1}{3}$$

- Option 1: $6\frac{8}{15}$
- Option 2: $6\frac{2}{8}$
- Option 3: $6\frac{1}{4}$
- Option 4: $6\frac{4}{15}$

10. Subtract.

$$7\frac{5}{6}-2\frac{1}{4}$$

- Option 1: $5\frac{1}{2}$
- Option 2: $5\frac{7}{12}$
- Option 3: $10\frac{1}{12}$
- Option 4: $9\frac{7}{12}$

11. Multiply.

$$\frac{5}{12}\times\frac{4}{10}$$

- Option 1: $\frac{1}{6}$
- Option 2: $\frac{1}{5}$
- Option 3: $\frac{20}{120}$
- Option 4: $\frac{9}{22}$

12. Divide.

$$\frac{5}{8}\div\frac{5}{9}$$

- Option 1: $1\frac{1}{2}$
- Option 2: $\frac{8}{9}$
- Option 3: $1\frac{1}{8}$
- Option 4: $\frac{1}{3}$

13. Find the probability.

You have a number cube with sides that are labeled:

8, 18, 12, 15, 3, and 11

Find P (12 or 3)

- Option 1: $\frac{1}{2}$
- Option 2: $\frac{1}{4}$
- Option 3: $\frac{1}{6}$
- Option 4: $\frac{1}{3}$

14. Find the probability.

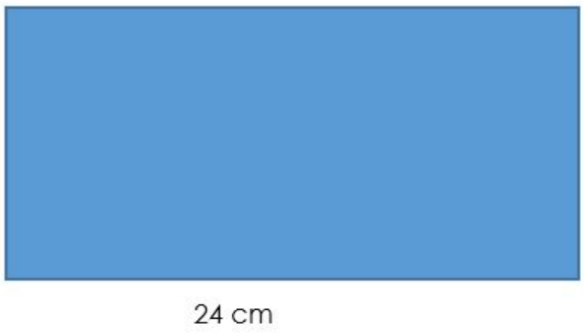
You have a number cube with sides that are labeled:

8, 18, 12, 15, 3, and 11

Find P (>11)

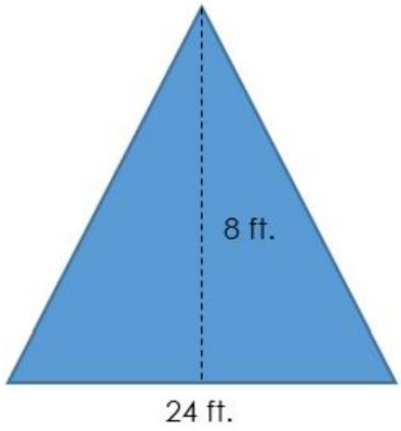
- Option 1: $\frac{1}{2}$
- Option 2: $\frac{1}{4}$
- Option 3: $\frac{1}{6}$
- Option 4: $\frac{1}{3}$

15. Find the area of the rectangle.



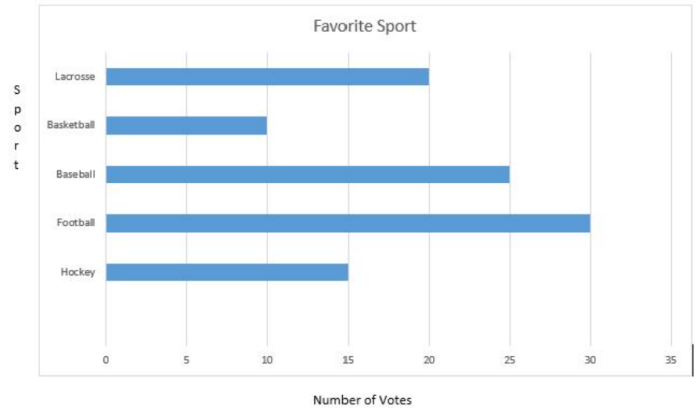
- 37 squared centimeters
- 74 squared centimeters
- 312 squared centimeters
- 156 squared centimeters

16. Find the area of the triangle.



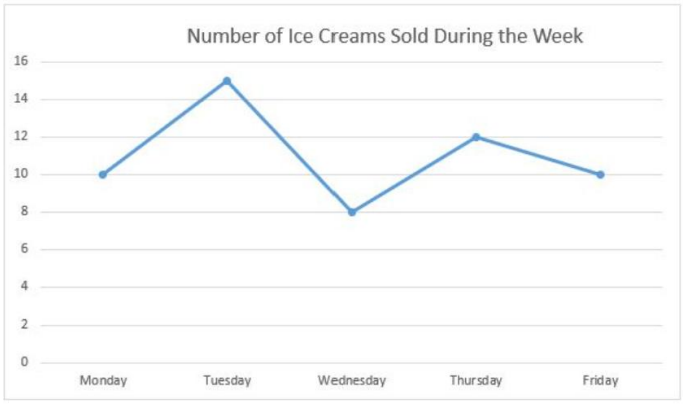
- 16 squared feet
- 192 squared feet
- 384 squared feet
- 96 squared feet

17. How many more people voted for lacrosse as their favorite sport over hockey?



- ◯ 5 more people
- ◯ 10 more people
- ◯ 20 more people
- ◯ none; an equal number of people like lacrosse and hockey

18. How many more ice creams were sold on Tuesday than on Wednesday?



- ◯ 5 more ice creams
- ◯ 6 more ice creams
- ◯ 7 more ice creams
- ◯ 8 more ice creams

19.

Find the GCF and LCM of 6 and 15

- ◯ GCF: 3, LCM: 30
- ◯ GCF: 30; LCM: 3
- ◯ GCF: 3; LCM: 60
- ◯ GCF: 60; LCM: 3

20.

Find the GCF and LCM of 8, 10 and 20

- ◯ GCF: 4, LCM: 20
- ◯ GCF: 2; LCM: 40
- ◯ GCF: 20; LCM: 4
- ◯ GCF: 40; LCM: 2

21. Compute using order of operations.

Evaluate $56 - 2 \times 8$

- ◯ 432
- ◯ 40
- ◯ 72
- ◯ 423

22. Compute using order of operations.

Evaluate $16 - 6 \div 3 + 7$

- ◯ 10
- ◯ 11
- ◯ 20
- ◯ 21

23.

Change $\frac{19}{3}$ to a mixed number.

- Option 1: $6\frac{2}{3}$
- Option 2: $6\frac{1}{3}$
- Option 3: $5\frac{2}{3}$
- Option 4: $5\frac{1}{3}$

24.

Change $5\frac{1}{6}$ to an improper fraction.

- Option 1: $\frac{12}{6}$
- Option 2: $\frac{21}{6}$
- Option 3: $\frac{30}{6}$
- Option 4: $\frac{31}{6}$

25.

Determine if 560,100 is divisible by 2, 3, 5, 9, and 10.

- 2,3,5,10
- 2,3,5,9,10
- 2,3,5
- 2,5,10

26.

Determine if 17,802 is divisible by 2, 3, 5, 9, and 10.

- 2,3,5,10
- 2,3,9
- 2,3,5
- 2,5,10

27.

Change $\frac{3}{8}$ to a decimal.

- 2.66
- 0.37
- 0.375
- 0.3705

28.

Change $3\frac{4}{5}$ to a decimal.

- 0.8
- 1.2
- 3.8
- 4.2

29.

Change 0.006 to a fraction in simplest form.

$\frac{6}{100}$

Option 1

$\frac{6}{1000}$

Option 2

$\frac{3}{50}$

Option 3

$\frac{3}{500}$

Option 4

30.

Change 8.2 to a mixed number in simplest form.

$\frac{1}{50}$

Option 1

$8\frac{1}{50}$

Option 2

$8\frac{1}{5}$

Option 3

$\frac{1}{5}$

Option 4

6th Grade Summer Math

JULY

1. Add.

$569{,}078 + 56{,}844 + 8{,}216{,}999$

- ○ 8,785,177
- ○ 8,842,021
- ○ 8,842,921
- ○ 8,841,665

2. Subtract.

$9{,}364{,}547 - 791{,}059$

- ○ 8,573,488
- ○ 10,155,606
- ○ 8,573,452
- ○ 8,645,488

3. Multiply.

8017×18

- ○ 14,706
- ○ 152,323
- ○ 144,603
- ○ 144,306

4. Divide.

$25{,}234 \div 62$

- ○ 47
- ○ 407
- ○ 48
- ○ 408

5. Add.

$783.19 + 78.036 + 18$

- ○ 879.226
- ○ 861.406
- ○ 863.026
- ○ 1,041.226

6. Subtract.

$78.93 - 12.893$

- ○ 66.163
- ○ 91.823
- ○ 66.037
- ○ 66.135

7. Multiply.

8.56×0.7

- ○ 599.2
- ○ 5.992
- ○ 59.92
- ○ 0.5992

8. Divide.

$2{,}785 \div 4$

- ○ 669.1
- ○ 696.1
- ○ 669.25
- ○ 696.25

9. Add.

$$6\frac{1}{2}+4\frac{2}{5}$$

$10\frac{3}{7}$

Option 1

$10\frac{1}{5}$

Option 2

$10\frac{9}{10}$

Option 3

$2\frac{1}{10}$

Option 4

10. Subtract.

$$8\frac{3}{4}-5\frac{1}{2}$$

$3\frac{1}{4}$

Option 1

$2\frac{1}{4}$

Option 2

$3\frac{1}{2}$

Option 3

$2\frac{3}{4}$

Option 4

11. Multiply.

$$\frac{7}{9}\times\frac{3}{5}$$

$\frac{21}{45}$

Option 1

$\frac{7}{15}$

Option 2

$\frac{10}{14}$

Option 3

$\frac{5}{7}$

Option 4

12. Divide.

$$\frac{6}{7}\div\frac{5}{14}$$

$2\frac{2}{5}$

Option 1

$\frac{15}{49}$

Option 2

$2\frac{1}{2}$

Option 3

$\frac{13}{14}$

Option 4

13. Find the probability.

You have a number cube with sides that are labeled:

8, 18, 12, 15, 3, and 11

Find P (8)

- ○ Option 1: $\frac{1}{2}$
- ○ Option 2: $\frac{1}{4}$
- ○ Option 3: $\frac{1}{6}$
- ○ Option 4: $\frac{1}{3}$

14. Find the probability.

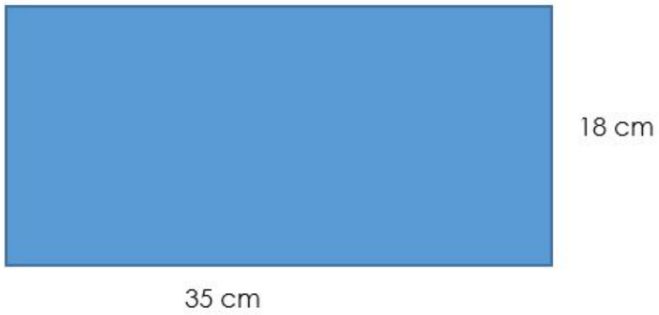
You have a number cube with sides that are labeled:

8, 18, 12, 15, 3, and 11

Find P (>15)

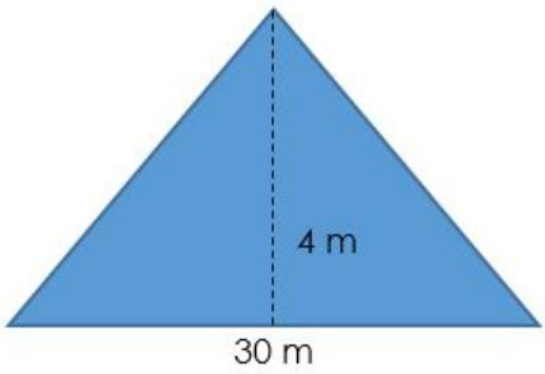
- ○ Option 1: $\frac{1}{2}$
- ○ Option 2: $\frac{1}{4}$
- ○ Option 3: $\frac{1}{6}$
- ○ Option 4: $\frac{1}{3}$

15. Find the area of the rectangle.



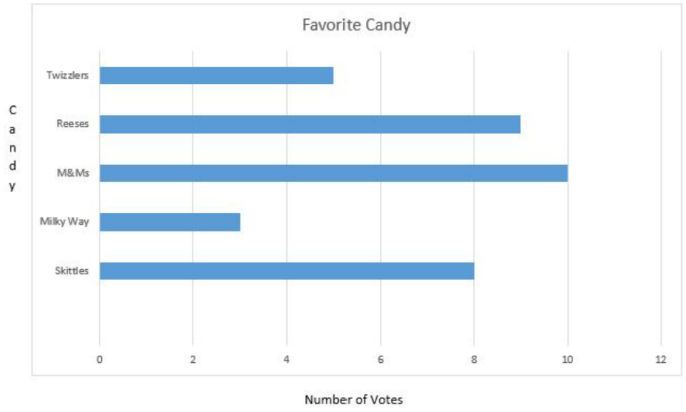
- ○ 315 squared centimeters
- ○ 630 squared centimeters
- ○ 53 squared centimeters
- ○ 106 squared centimeters

16. Find the area of the triangle.



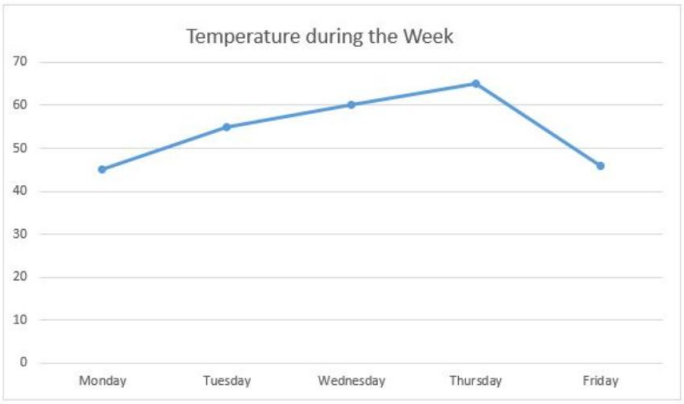
- ○ 60 squared meters
- ○ 120 squared meters
- ○ 35 squared meters
- ○ 70 squared meters

17. How many total people voted for M&Ms and Twizzlers?



- ○ 5 people
- ○ 10 people
- ○ 15 people
- ○ 20 people

18. On what day was the temperature the greatest?



- ○ Monday
- ○ Tuesday
- ○ Wednesday
- ○ Thursday

19.

Find the GCF and LCM of 10 and 14

- ○ GCF: 2, LCM: 140
- ○ GCF: 140; LCM: 2
- ○ GCF: 2; LCM: 70
- ○ GCF: 70; LCM: 2

20.

Find the GCF and LCM of 10, 15 and 30

- ○ GCF: 5, LCM: 30
- ○ GCF: 30; LCM: 5
- ○ GCF: 5; LCM: 60
- ○ GCF: 1; LCM: 60

21. Compute using order of operations.

Evaluate $67 - 3 \times 4$

- ○ 280
- ○ 64
- ○ 256
- ○ 55

22. Compute using order of operations.

Evaluate $20 - 10 \div 5 + 3$

- ○ 10
- ○ 21
- ○ 5
- ○ 20

23.

Change $\frac{15}{4}$ to a mixed number.

$3\frac{1}{4}$

Option 1

$3\frac{3}{4}$

Option 2

$2\frac{3}{4}$

Option 3

$2\frac{3}{5}$

Option 4

24.

Change $3\frac{4}{5}$ to an improper fraction.

$\frac{19}{5}$

Option 1

$\frac{19}{4}$

Option 2

$\frac{17}{5}$

Option 3

$\frac{15}{5}$

Option 4

25.

Determine if 150,105 is divisible by 2, 3, 5, 9, and 10.

- 2,3,5,9,10
- 3,5
- 2,3,5.10
- 2,5,10

26.

Determine if 205,400 is divisible by 2, 3, 5, 9, and 10.

- 2,3,5,10
- 2,3,5,9,10
- 2,3,5
- 2,5,10

27.

Change $\frac{3}{4}$ to a decimal.

- 7.5
- 0.75
- 0.85
- 1.3

28.

Change $5\frac{1}{4}$ to a decimal.

- 5.2
- 0.25
- 5.4
- 5.25

29.

Change 0.04 to a fraction in simplest form.

$\frac{1}{25}$

Option 1

$\frac{1}{250}$

Option 2

$\frac{4}{1000}$

Option 3

$\frac{4}{100}$

Option 4

30.

Change 6.8 to a mixed number in simplest form.

$\frac{4}{5}$

Option 1

$\frac{8}{10}$

Option 2

$6\frac{8}{10}$

Option 3

$6\frac{4}{5}$

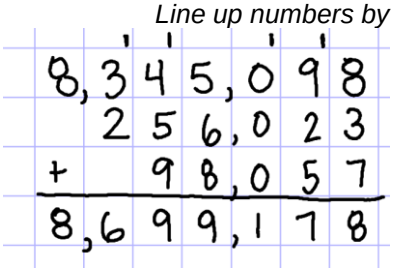
Option 4

Help Pages - Refer to these Similar Problems as Needed

Help for #1: Adding Whole Numbers

8,345,098 + 256,023 + 98,057

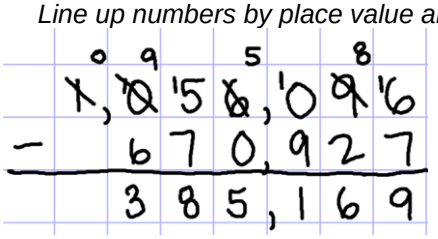
Line up numbers by place value:



Help for #2: Subtracting Whole Numbers

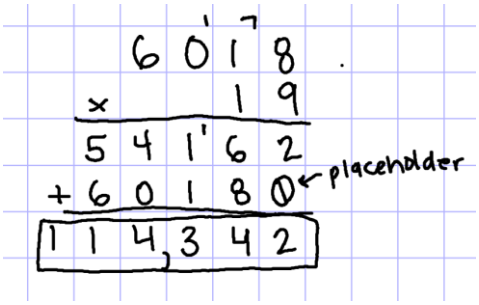
1,056,096 – 670,927

Line up numbers by place value and borrow as needed:



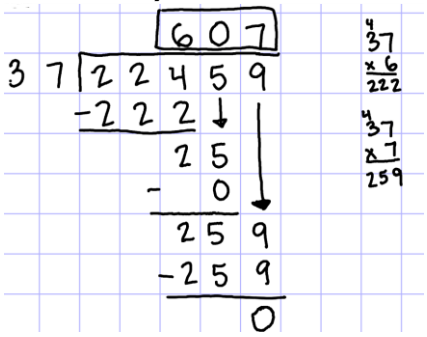
Help for #3: Multiplying Whole Numbers

6018 x 19



Help for #4: Dividing Whole Numbers

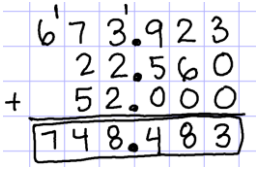
22,459 ÷ 37



Help for #5: Adding Decimals

673.923 + 22.56 + 52

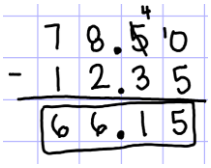
Line up decimals → add a decimal and placeholders of zero as you need.



Help for #6: Subtracting Decimals

78.5 – 12.35

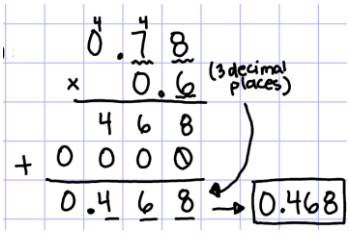
Line up decimals → add a decimal and placeholders of zero as you need.



Help for #7: Multiply Decimals

0.78 x 0.6

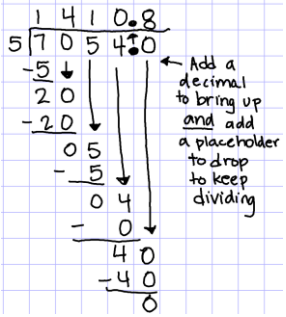
Do NOT line up decimals for multiplying! Count how many numbers come after your decimals to decide where to put the decimal in the final answer.



Help for #8: Dividing to Decimals

7054 ÷ 5

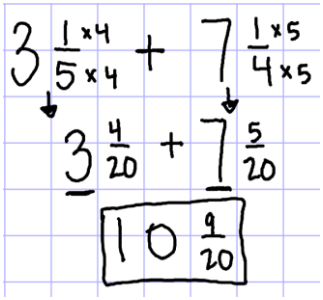
No Remainders allowed → add a decimal to bring up and a placeholder to bring down, as needed.



Help for #9: Add Mixed Numbers

$$3\frac{1}{5} + 7\frac{1}{4}$$

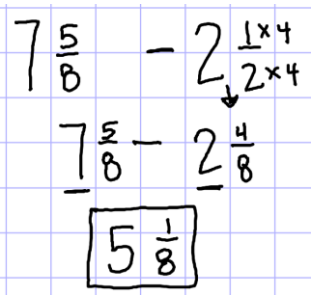
Rename the mixed numbers to have COMMON denominators.



Help for #10: Subtract Mixed Numbers

$$7\frac{5}{8} - 2\frac{1}{2}$$

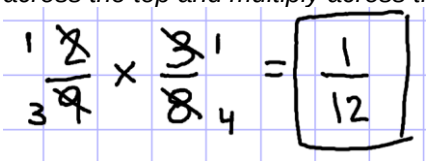
Rename the mixed numbers to have COMMON denominators.



Help for #11: Multiply Mixed Numbers

$$\frac{2}{9} \times \frac{3}{8}$$

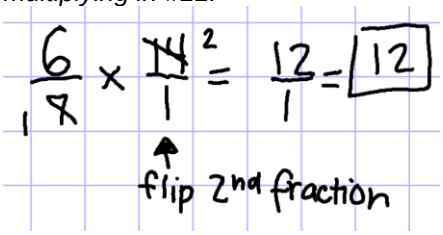
Simplify the numbers diagonally if possible. Then, multiply across the top and multiply across the bottom.



Help for #12: Divide Fractions

$$\frac{6}{7} \div \frac{1}{14}$$

Keep the first fraction, Change division to multiplication, and Flip the second fraction. Then solve like you did for multiplying in #11.

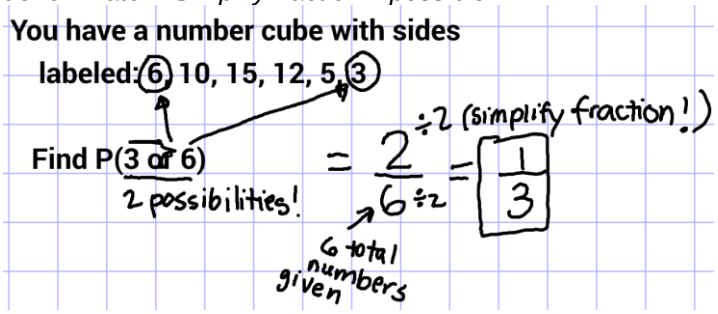


Help for #13: Probability

You have a number cube with sides labeled: 6, 10, 15, 12, 5, 3

Find P(3 or 6)

Probability can be represented as a fraction. Put the number that represents the criteria you are asked for in the numerator, and put the TOTAL options given in the denominator. Simplify fraction if possible.

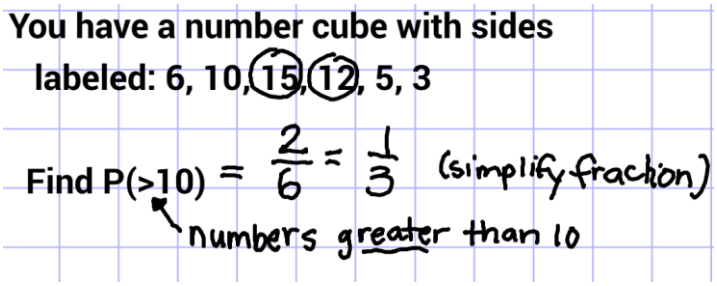


Help for #14: Probability

You have a number cube with sides labeled: 6, 10, 15, 12, 5, 3

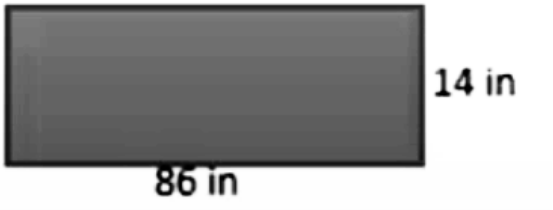
Find P(>10)

Probability can be represented as a fraction. Put the number that represents the criteria you are asked for in the numerator, and put the TOTAL options given in the denominator. Simplify fraction if possible.



Help for #15: Area of Rectangles

Find the area of the rectangle:



Multiply the LENGTH and the WIDTH. "Units" on your answer should be "squared" for area.

$$\begin{array}{r} {}^{2} \\ 86 \\ \times\ 14 \\ \hline 344 \\ +\ 860 \\ \hline 1204 \end{array}$$ ← placeholder

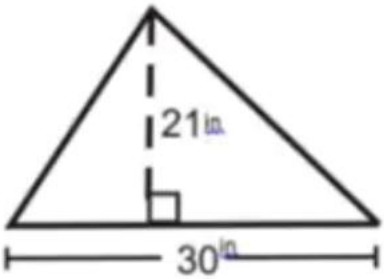
$1,204\ in^2$

or

1,204 squared inches

Help for #16: Area of Triangles:

Find the area of the triangle:



Multiply the BASE and HEIGHT, then divide by 2. "Units" on your answer should be "squared" for area.

$$\begin{array}{r} 21 \\ \times\ 30 \\ \hline 00 \\ +\ 630 \\ \hline 630 \end{array}$$ ← placeholder

↳ divide by 2 for a triangle:

$$2\overline{)630} \quad 315$$

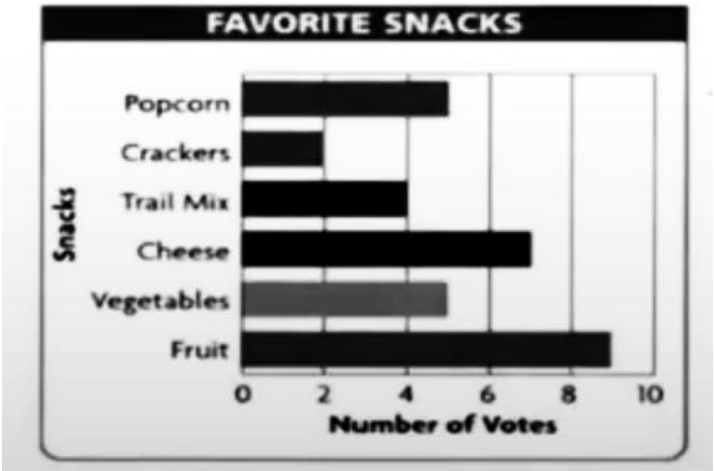
$-6\downarrow$, 03, $-2\downarrow$, 10, -10, 0

$315\ in^2$

(315 squared inches)

Help for #17: Reading Bar Graphs

How many more people like fruit over popcorn?



Popcorn: 5

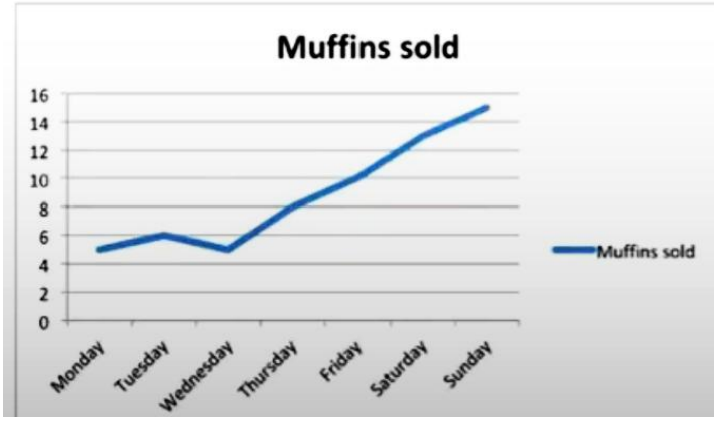
Fruit: 9

9 − 5 = 4

4 more people

Help for #18: Reading Line Graphs

On what day were the least number of muffins sold?



Monday & Wednesday

(5 muffins were sold on both days)

Help for #19: Find GCF and LCM

Find the GCF and LCM of 8 and 10.

GCF → list factors

Factors of 8	Factors of 10
1 × 8	1 × 10
② × 4	② × 5

2 is the greatest factor they share

LCM → list multiples

Multiples of 8: 8, 16, 24, 32, (40), 48, ...

Multiples of 10: 10, 20, 30, (40), ...

40 is the 1st multiple they share

GCF: 2
LCM: 40

Help for #20: Find GCF and LCM

Find the GCF and LCM of 10, 12, and 30.

GCF → list factors

10	12	30
1 × 10	1 × 12	1 × 30
② × 5	② × 6	② × 15
	3 × 4	3 × 10
		5 × 6

↳ 2 is the biggest factor they share.

LCM → list multiples

10 → 10, 20, 30, 40, 50, (60), 70

12 → 12, 24, 36, 48, (60), 72

30 → 30, (60), 90

↳ 60 is the 1st multiple they share

GCF: 2
LCM: 60

Help for #21: Order of Operations

45 – 2 x 6

You must do multiplication/division BEFORE adding/subtracting.

45 − (2 × 6) ← multiply 1st!

45 − 12

$\begin{array}{r} 45 \\ -12 \\ \hline 33 \end{array}$

33

Help for #22: Order of Operations

18 – 14 ÷ 2 + 5

You must do multiplication/division BEFORE adding/subtracting.

18 − (14 ÷ 2) + 5 ← divide 1st!

18 − 7 + 5

Adding and subtracting are computed LEFT to RIGHT!

11 + 5

16

Help for #23: Mixed Numbers/Improper Fractions

$$\frac{18}{5}$$

Divide and stop at the remainder. Put the remainder over the divisor (the outside number) to form your fraction.

$5\overline{)18}$ → 3

−15

3 ← remainder

$3\frac{3}{5}$

Help for #24: Mixed Numbers/Improper Fractions

$$7\frac{1}{8}$$

Multiply the denominator to the whole number in the front. Then, add the numerator to it. Keep the original denominator.

56 + 1 = 57 ← Add

$\frac{1}{8} = \frac{57}{8}$

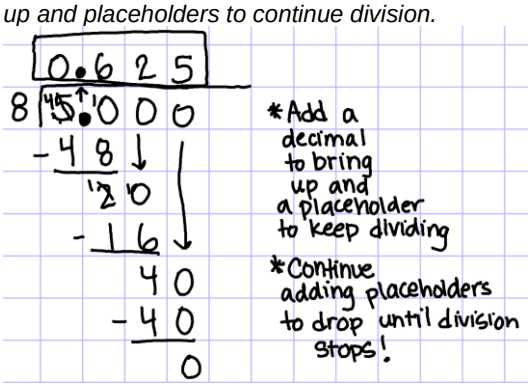
Multiply 7 × 8 = 56

keep

Help for #25: Fraction to a Decimal

$$\frac{5}{8}$$

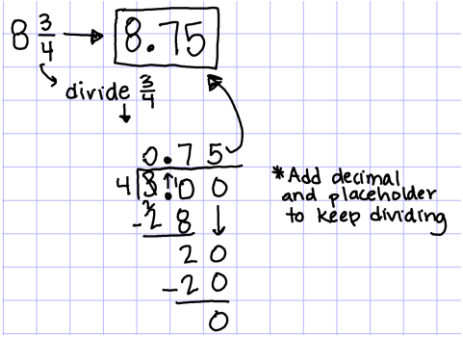
Divide. First number goes into the house. Add a decimal to bring up and placeholders to continue division.



Help for #26: Mixed Number to a Decimal

$$8\frac{3}{4}$$

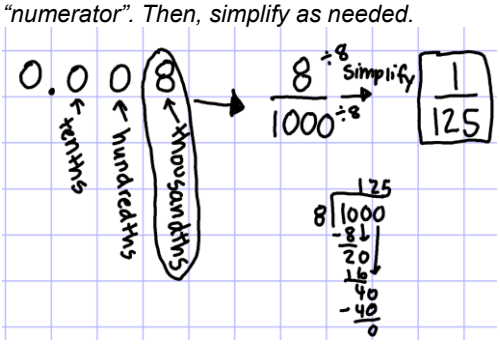
Divide. Numerator of the fraction goes into the house. Add a decimal to bring up and placeholders to continue division. Attach the whole number in the front at the end.



Help for #27: Decimals to Fractions

Write 0.008 as a fraction.

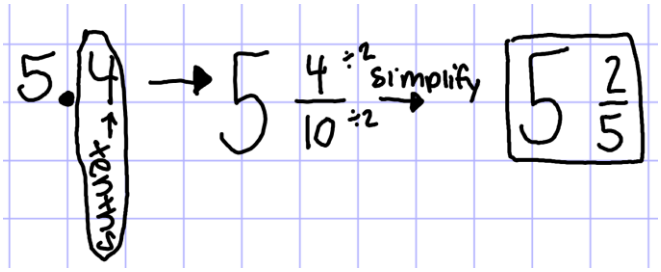
Figure out what place the decimal ENDS in and place that value in the "denominator". Place the number in the decimal as the "numerator". Then, simplify as needed.



Help for #28: Decimals to Mixed Numbers

Write 5.4 as a mixed number.

Figure out what place the decimal ENDS in and place that value in the "denominator". Place the number in the decimal as the "numerator". Simplify if possible, then attach the whole number in front of the fraction.



Help for #29: Divisibility Rules

Is 100,035 divisible by 2, 3, 5, 9, and / or 10?

2: last digit is even (0, 2, 4, 6, 8)
3: add all the digits and see if it's divisible by 3
5: last digit is 0 or 5
9: add all the digits and see if it's divisible by 9
10: last digit is 0

100,035

2: No (last digit not even)

3: Yes (1+0+0+0+3+5 = 9 → 9÷3 = 3)

5: Yes

9: Yes (1+0+0+0+3+5 = 9 → 9÷9 = 1)

10: No (last digit is not a 0)

3, 5, 9

Help for #30: Divisibility Rules

Is 56,080 divisible by 2, 3, 5, 9, and / or 10?

2: last digit is even (0, 2, 4, 6, 8)
3: add all the digits and see if it's divisible by 3
5: last digit is 0 or 5
9: add all the digits and see if it's divisible by 9
10: last digit is 0

56,080

2: Yes (last digit is even)

3: No (5+6+0+8+0 = 19 → you can't do 19÷3)

5: Yes (last digit 0)

9: No (5+6+0+8+0 = 19 → you can't do 19÷9)

10: Yes (last digit is a 0)

2, 5, 10