**ANSWER KEY**

**Summer Math Reinforcement Packet**

**Students Entering into 6th Grade**

1. Check with a calculator. Practice any you do not know within 2 seconds.
2. Same as #1
3. B
4. D
5. B
6. D
7. A
8. B
9. D
10. A
11. B
12. B
13. D

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 14. | A . . . |  |  | . . . . . . | . . . . . . . . . . . 50 |  |
|  |  |  |  |  | 2 x 25 |  |
|  |  |  |  |  | 2 x 5 x 5 |  |
| 15. | B | 84 | | |  |  |
|  |  |  |  | 2 x 42 |  |  |
|  |  |  |  | 2 x 2 x | 21 |  |
|  |  |  |  |
|  |  | 2 x 2 x | | | 3 x 7 |  |

1. A
2. C

|  |  |  |  |
| --- | --- | --- | --- |
| 18. | D | 2/3÷3 or 3/1 | 2/3 x 1/3=(2 x 1)/( 3 x 3)=2/9 |
| 19. | C | 1/3 ÷ 4 or 4/1 | 1/3 x ¼ = (1 x 1)/(3 x 4) = |
|  | 1/12 | |  |

1. D 2 ÷ ¼ = 2/1 x 4/1 = (2 x 4)/(1 x 1) = 8/1 or 8
2. D For adding and subtracting fractions you need a common denominator (bottom number of the

fraction needs to be the same) so

3 3/5 + 5 1/3 = 3 9/15 + 5 5/15 = 8 14/15.

1. B
2. B
3. A Change the denominator to 60 (12x5)
4. D ¾ + 4/7
5. B 3 7/8 – 1 3/4
6. B 1 – (1/3 + ¼) = 12/12 – (4/12 + 3/12)
7. B

29. D ½ + ¾ change the denominator to 4 so 2/4 + ¾ = 5/4 = 1 ¼.

1. C $12.32 + $3.70.
2. C
3. B 10 x ¼ = 10/1 x ¼ = 10/4
4. C think fact family 5/12 – 1/3 = ?
5. B think fact family 11/2 – ¼ = ?
6. B Fact family ¾ - 1/3 = ?
7. C 1 ÷ 20 = .05 = 5%
8. B 7 ÷ 10 = .7 = 70%
9. D 12 x 12 x 12
10. B See terms
11. D See term

41. 186,932 12,168 38,502 7,360

1. B
2. B Count the squares or approx equivalent
3. B Area of Rec. A = 4 x 10 = 40 units2 ;

Area of Rec. B = 2 x 4 = 8 units2 (8 x 5 = 40)

1. D
2. C
3. C See terms (pg. 2) for formula of rectangle and parallelogram.
4. B See terms (pg. 2) for formula of a triangle

(½ of 6) x 10 = 3 x 10 = 30

1. D See terms for formula page 2
2. B
3. 24, 64, 42 18, 25, 54 40, 4, 12 8, 49, 8 8, 9, 24 5, 16, 56 8, 9, 24
4. 254; 390; 1,118; 1,590; 1,482; 498; 874
5. 466.90 remember the decimals line up when + and -
6. C (1/2 of 12) x 16 = 6 x 16
7. C (1/2 of 8) x 3 = 4 x 3
8. B
9. B
10. A 4 = length; 3 = height
11. C 8 = length; 4 = height
12. D
13. B Area = length x height so 24 = 8 x ?

62. D Multiply each to see if it equals 36 A. 1 x 36 = 36

B. 3 x 12 = 36 C. 4 x 9 =36 D. 5 x 7 = 35

1. C
2. D
3. D
4. D
5. B
6. A
7. 181.43 remember line up the decimal when + and -
8. C
9. B
10. A
11. A
12. C A straight line is 180o so 180o – 40 o = 140o
13. C 180o is a straight line and 90o is a right angle
14. D A circle measures 360o divide this by 6 pieces
15. C 180 – 50 = 130
16. 9, 18, 63, 12 48, 4, 24, 81 8, 49, 8, 0 8, 2, 21 42

79. B A circle measures 360o subtract all the measurements form this.

* 1. D

1. A Angle BCD = 180o so 180 – 60 = 120
2. A See terms page
3. B
4. A
5. C Sum of interior angles of a triangle is 180o and there are 3 triangles so 180 x 3 = 540
6. A
7. A Sum of interior angles of a triangle is 180o

so 180 – (60 + 90) = 30

1. D
2. C Sum of interior angles of a quadrilateral is 360o so 360 – (90 + 90 + 45) = 135
3. A 250 – 200
4. C follow the dotted line for New Zealand
5. A 1300 – 1200

|  |  |
| --- | --- |
| 93. | B Mean is average 2 + 1 + 1+ 4 = 8 8 ÷ 4 = 2 |
| 94. | Mode = B ( mode = most often) |
|  | Range = D 9 – 0 |

1. B
2. A
3. 666, 41, 63, 16, 20, 77, 42

In subtraction remember to borrow if the bottom number is bigger. Check you answer by adding.

1. 133.57; 31.96; 230.10; 0.504; 89.3; 20.16; 28.86
2. B
3. A or c
4. C
5. C Put numbers in order from smallest to largest then what number is in the middle
6. 1 Mode is number shown most often

104. Mode = 8 books see terms page Mean = C

1. A (61 + 61 + 61 + 61 + 61 + 61 + 61 + 61 + 61 + 71) ÷

10

or (61 x 9) +71 = 620 ÷ 10

1. B
2. C

108. Average (Mean) = 21; C; You need to add all the test scores again then divide by the total number of tests.

1. Philip forgot to “shift” the second partial product to the left, to account for the fact that “3318” i s really

3318 tens, or 33180. (Needed to add the place value 0)

1. A. **1,200; 3,600; 160,000** just multiply the 2 numbers

(that are not zeros) then add all the zeros in the equation at the end of the answer. Ex. 400 x 3 = 4x3 =12 then add 2 zeros. 60 x 60 = 36 add 2 zeros.

* 1. **20; 5; 30** You can eliminate an equal number ofzeros on both sides of the ÷ sign; th en solve the division problem.

1. 1,692; 3,196; 2,301; 504; 893; 2,016; 2,886
2. The factor tree could show 27 divided into 9 x 3, then 3 x 3 x 3, 27 = 33
3. They ate 7/12 of the pizza, so 5/12 is left or 5 slices.
4. 1 cubic inch is smaller than 1 cubic foot

1 cubic centimeter is smaller than 1 cubic meter

2 cubic feet is smaller than 1 cubic yard

1. The area of a rectangle is base times height. A rectangle can be divided into two right triangles by drawing the diagonal line. Each rectangle has a base of b and a height of h. Since each as and area ½ of the rectangle, the area of the triangle is ½ bh.
2. <DOE = 25o , acute <COD = 65o, acute <BOE = 145o, obtuse <AOC = 90o, right
3. A = 130o Sum of the 4 interior angles of a

parallelogram(quadrilateral) is 360o

B = 50o this is the same as the opposite angle C = 130o

1. 700.09 line up the decimals
2. 700.23
3. 29.24

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 121. A. 1524 ÷ 6 = 254 | | | | | | | | | |  | so | | 254 x 6 = 1524 | | | | | | | | |  |  |  |  |  |
|  | B. 380 ÷ 10 = 38 | | | | | | | |  |  | so | | 38 x 10 = 380 | | | | | | | |  |  |  |  |  |  |
|  | C. 4235 ÷ 10 = 423 r5 | | | | | | | | | | | | so | | 423 x 10 = 4230 + 5 = 4235 | | | | | | | | | | | |
|  | D. 769 ÷ 4 = 192 r1 | | | | | | | | | |  |  | so | | 192 x 4 = 768 + 1 = | | | | | | | | | 769 | | |
|  | E. 765 ÷ 5 = 153 | | | | | | | |  |  | so | | 153 x 5 = 765 | | | | | | | |  |  |  |  |  |  |
| 122. | 28, |  | 0, | 9, | | 40, | | 36, | |  | 35, | | 7, | 45, | | | 30, |  | 55, | | 36, | 72, |  | 49, | | 63 |
|  | 8, | 1, | | 5, |  | 4, | 6, |  | 2, |  | 3, | 8, | | 3, |  | 4, | 3, |  | 4, | 4 |  |  |  |  |  |  |
|  | 12, 16, | | | | 42, | | 20, | | 144, | | | | 15, | | 18, | | 24, | | 0, |  | 21, | 25, |  | 24, |  | 27, |
| 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 9, | 4, | | 8, |  | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2, | 7, | | 2, |  | 6, | 3, |  | 8, |  | 7, | 5, | | 9, |  | 6, | 8, |  | 0, | 8 |  |  |  |  |  |  |
|  | 54, | | 64, | |  | 36, | 12, | | | 4, | | 24, | | 77, | | 30, | | 56, | | 15, | | 14, | 48, | | 20, | |

44

123. 1/2 = 0.5 = 50%

0.08 = 8/100 or 2/25 = 8%

20% = .2 = 1/5 or 2/10

1. **Fractions**: see terms

1 1/4

1. 4 1/15
2. 1/20