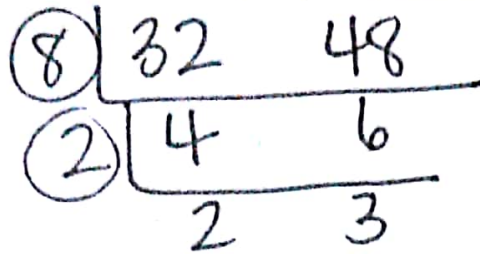


1. What is the greatest common factor (GCF) of 32 and 48?

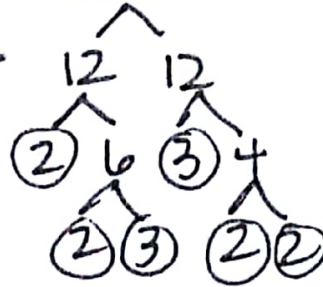


$$\boxed{\text{GCF} = 16}$$

2. What is the sum of the numbers in the prime factorization of 144?

$$2^4 \cdot 3^2$$

$$2 + 2 + 2 + 2 + 3 + 3$$

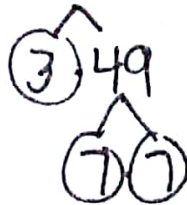


$$\boxed{14}$$

3. Find the difference: $\frac{3 \cdot 5}{2 \cdot 7} - \frac{2 \cdot 7}{3 \cdot 7}$

$$\frac{15}{21} - \frac{14}{21} = \boxed{\frac{1}{21}}$$

4. What is the prime factorization of 147?



$$\boxed{3 \cdot 7^2}$$

5. Cora is making muffins for her birthday. She adds $2\frac{3}{4}$ cups of flour, $1\frac{1}{2}$ cups of sugar and $\frac{2}{3}$ cup of oil. How many cups in total of batter did Cora make?

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

$$2\frac{9}{12} + 1\frac{6}{12} + \frac{8}{12} = 3\frac{23}{12}$$

$$\boxed{4\frac{11}{12}}$$

b. What is the least common multiple (LCM) of 8, 12 and 18?

$$\begin{array}{r} 8 \\ \times 9 \\ \hline 72 \end{array}$$

$$\begin{array}{r} 12 \\ 24 \\ 36 \\ 48 \\ 60 \\ 72 \end{array}$$

$$\begin{array}{r} 18 \\ 36 \\ 54 \\ 72 \end{array}$$

$$\boxed{\text{LCM} = 72}$$

7. Lachlan had $2\frac{1}{2}$ hours to do homework before he had to go to hockey practice. He spent $\frac{3}{4}$ hour to complete an essay for ELA. How much time does he have left to finish the rest of his homework?

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

$$\frac{5}{2} - \frac{3}{4} = \frac{10}{4} - \frac{3}{4} = \frac{7}{4} = \boxed{1\frac{3}{4}}$$

8. There are 48 girls and 64 boys in choir. The choir teacher plans to arrange the students in equal rows. Only girls or boys will be in each row. What is the greatest number of students that could be in each row?

$$\begin{array}{r} 8 \overline{) 48 \quad 64} \\ \underline{40 \quad 48} \\ 8 \\ \underline{8 } \\ 0 \end{array}$$

$$\boxed{\text{GCF} = 16}$$

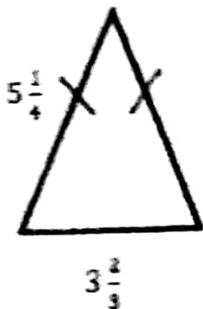
9. Which expression is equivalent to $42 + 56$?

- a) $13 + 15$
- b) $7(6 + 8)$
- c) $6(8 + 7)$
- d) $7(7) + 7(8)$

$$\begin{array}{r} 7 \overline{) 42 \quad 56} \\ \underline{28 \quad 42} \\ 14 \\ \underline{14 } \\ 0 \end{array}$$

$$\boxed{B}$$

10. What is the perimeter of the isosceles triangle below?



$$10\frac{1}{2} + 3\frac{2}{3}$$

$$10\frac{3}{6} + 3\frac{4}{6} = 13\frac{7}{6}$$

$$\boxed{14\frac{1}{6}}$$

11. Which pair of numbers has a GCF of 8?

- a) 24 and 34
- b.) 24 and 48
- c. 32 and 48
- d.) 64 and 78

C

12. Which expressions are equivalent to $36 + 48$? Circle all that are equivalent.

$2(18 + 24)$

$3(12 + 16)$

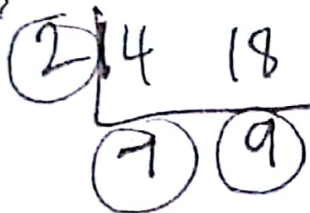
$6(6 + 48)$

$4(9 + 12)$

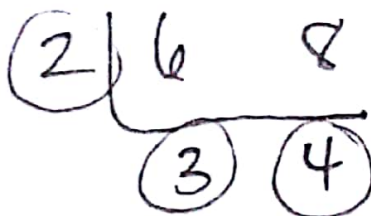
$2(36 + 24)$

13. What is the least common multiple (LCM) of 14 and 18?

$LCM = 126$



14. The Bank of America Stadium is giving a free keychain to every 6th person who enters the game and a free water bottle to every 8th person who enters the game. What number person will be the first to receive both a keychain and a water bottle?



$LCM = 24$

4

15. Elizabeth, Davis and their two friends went to the fair. They each paid \$6 admissions and \$3 for a caramel apple. Write three number sentences that can be used to determine the total amount spent at the fair.

$4(6 + 3)$

$4(6) + 4(3)$

$24 + 12$

36

16. Which expression is equivalent to $18 + 54$?

- a.) $9(2 + 27)$
- b.) $6(2 + 9)$
- c.) $3(6 + 16)$
- d.) $9(2 + 6)$

D

17. Prove the greatest common factor (GCF) of 42 and 56 is 14.

GCF = 14

7	42	56
2	6	8
	3	4

18. Keng and his friends went out to lunch after their baseball game. They each bought a meal that cost the same and a dessert that cost the same. If they spent \$60 in total for their meals and \$48 in total on dessert, how many friends could have been at lunch?

Number of Friends	Cost of Each Meal	Cost of Each Dessert
2	30	24
3	20	16
4	15	12
6	10	8
12	5	4

60	48
2 · 30	2 · 24
3 · 20	3 · 16
4 · 15	4 · 12
5 · 12	6 · 8
6 · 10	