1. Add. Simplify if possible.

$$\frac{t+v}{tv^2} + \frac{3t+v}{t^2v}$$

$$\frac{t+v}{tv^2} + \frac{3t+v}{t^2v} = \boxed{\frac{t^2 + 4tv + v^2}{t^2v^2}}$$

(Simplify your answer.)

2. Add.

$$\frac{9}{w+4} + \frac{5}{3w}$$

$$\frac{9}{w+4} + \frac{5}{3w} = \boxed{\frac{4(8w+5)}{3w(w+4)}}$$ (Simplify your answer.)

3. Add. Simplify, if possible.

$$\frac{9g}{7g-21} + \frac{5g}{21g-63}$$

$$\frac{9g}{7g-21} + \frac{5g}{21g-63} = \boxed{\frac{32g}{21(g-3)}}$$

(Simplify your answer. Use integers or fractions for any numbers in the expression.)

4. Add.

$$\frac{9x+2}{x-8} + \frac{7x}{8-x}$$

The sum is $\boxed{\dfrac{2(x+1)}{x-8}}$.

(Simplify your answer.)

5. Add.

$$\frac{4(3x+5)}{5x-7} + \frac{4(x-4)}{7-5x} + \frac{-13x-29}{5x-7}$$

Choose the correct sum of $\frac{4(3x+5)}{5x-7} + \frac{4(x-4)}{7-5x} + \frac{-13x-29}{5x-7}$.

○A. 49

○B. $\frac{5x^2-5x+7}{(5x-7)(7-5x)}$

○C. 70

✔D. -1

6. Add. Simplify, if possible.

$$\frac{4}{y^2+2y+1} + \frac{1}{y^2-1}$$

Choose the correct sum.

○A. $\frac{5y+3}{(y-1)(y+1)}$

✔B. $\frac{5y-3}{(y-1)(y+1)^2}$

○C. $\frac{5y-3}{(y-1)(y+1)}$

○D. $\frac{5y-3}{(y-1)^2(y+1)}$

7. Subtract. Simplify, if possible.

$$\frac{9w+6r}{5wr^2} - \frac{4w-5r}{w^2r}$$

Which choice is correct?

○A. $\frac{5w^2r^2}{9w^2-14wr+25r^2}$

○B. $\frac{9w^2-14wr+25r^2}{5w^3r^3}$

○C. $\frac{9w^2-14wr+25r^2}{5wr}$

✔D. $\frac{9w^2-14wr+25r^2}{5w^2r^2}$

8.   Subtract. Simplify if possible.

$$\frac{7s}{(s^2 - t^2)} - \frac{s}{(s - t)}$$

$$\frac{7s}{(s^2 - t^2)} - \frac{s}{(s - t)} = \boxed{\frac{7s - s^2 - st}{(s - t)(s + t)}}$$ (Simplify your answer.)

9.   Subtract. Simplify by removing a factor of 1 when possible.

$$\frac{5x - 40}{x^2 - 64} - \frac{8 - x}{64 - x^2}$$

$$\frac{5x - 40}{x^2 - 64} - \frac{8 - x}{64 - x^2} = \boxed{\frac{4}{x + 8}}$$

10.   Subtract. Simplify, if possible.

$$\frac{6 - z}{z - 4} - \frac{2z - 7}{4 - z}$$

$$\frac{6 - z}{z - 4} - \frac{2z - 7}{4 - z} = \boxed{\frac{z - 1}{z - 4}}$$

(Simplify your answer.)

11.   Subtract.

$$\frac{f}{f^2 + 19f + 90} - \frac{9}{f^2 + 17f + 72}$$

$$\frac{f}{f^2 + 19f + 90} - \frac{9}{f^2 + 17f + 72} = \boxed{\frac{f - 10}{(f + 10)(f + 8)}}$$

(Simplify your answer.)

12.   Perform the indicated operations and simplify.

$$\frac{8}{x + w} + \frac{8}{w - x} - \frac{16x}{x^2 - w^2}$$

$$\frac{8}{x + w} + \frac{8}{w - x} - \frac{16x}{x^2 - w^2} = \boxed{-\frac{16}{x - w}}$$

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Date: 1/1/15
Time: 11:17 AM

Instructor: fahad aljabr
Course: MATH-001: Fundamentals of
Math 11415
Book: Bittinger: Introductory and
Intermediate Algebra, 4e

Assignment: Week 7 Practice
Exercises

13. Solve the equation and check your answer.

$$\frac{q+4}{2} + \frac{q-3}{3} = \frac{7}{2}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

✅ A. The solution is 3 . (Simplify your answer. Type an integer or a fraction.)

⚪ B. There is no solution.

14. Solve the equation and check your solution.

$$\frac{x-3}{3x+8} = \frac{1}{6}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

✅ A. The solution is $x = \dfrac{26}{3}$. (Simplify your answer.)

⚪ B. There is no solution.

15. Solve the following equation for x.

$$\frac{x-1}{x+4} = \frac{x-5}{x+2}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

✅ A. The solutions are $x = -9$.
(Use a comma to separate answers as needed. Type an exact answer, using radicals as needed.)

⚪ B. There is no solution.

16. Solve.

$$\frac{x}{x+6} - \frac{6}{x-6} = \frac{x^2+36}{x^2-36}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- ◯ A. The solution is x = ▢ .
  (Simplify your answer. Type an integer or a fraction.)
- ✅ B. There is no solution.

17. Solve.

$$5 - \frac{a-3}{a+3} = \frac{a^2-3}{a+3}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- ✅ A. a = 7
  (Type an integer or a simplified fraction.)
- ◯ B. There is no solution.

18. Jack usually mows his lawn in 7 hours. Marilyn can mow the same yard in 6 hours. How much time would it take for them to mow the lawn together?

They could mow the lawn in $3\frac{3}{13}$ hours if they worked together.

(Simplify your answer.)

19. The OfficeJet printer can copy Janet's dissertation in 22 min. The LaserJet printer can copy the same document in 12 min. If the two machines work together, how long would they take to copy the dissertation?

$7\frac{13}{17}$ minutes

(Simplify your answer.)

20. The speed of a passenger train is 12 mph faster than the speed of a freight train. The passenger train travels 300 miles in the same time it takes the freight train to travel 240 miles. Find the speed of each train.

What is the speed of passenger train? 60 mph.

What is the speed of freight train? 48 mph.

21. A long distance trucker traveled 96 miles in one direction during a snow storm. The return trip in rainy weather was accomplished at double the speed and took 3 hours less time. Find the speed going.

The speed going was 16 mph.

22. A student traveled 213 km in 20 days. At the same ratio, how far would the student travel in 100 days?

The student would travel 1065 km.

23. In the 2009 Major League Baseball season, a fictional baseball player, playing for the team of the National League, collected 119 hits in 436 at-bats in his first 112 games.
a) The ratio of number of hits to number of at-bats, rounded to the nearest thousandth, is a player's batting average. What was fictional baseball player's batting average in his first 112 games?
b) Based on the ratio of number of hits to number of games, how many hits would he get in the 160-game season?

a) The fictional baseball player's batting average in his first 112 games is 0.273 .
(Type an integer or decimal rounded to the nearest thousandth as needed.)

b) A fictional baseball player would get 170 hits in the 160-game season.
(Round to the nearest whole number as needed.)

24. To determine the number of trout in a lake, a conservationist catches 102 trout, tags them and throws them back into the lake. Later, 44 trout are caught; 11 of them are tagged. How many trout would the conservationist expect to be in the lake?

The conservationist would expect that there are 408 trout in the lake.