Student: yaser almohaws **Submitted:** 11/29/14 6:28pm	**Instructor:** fahad aljabr **Course:** MATH-001: Fundamentals of Math 11415 **Book:** Bittinger: Introductory and Intermediate Algebra, 4e	**Assignment:** Graded Homework 7

1. Add. Simplify, if possible.

$$\frac{9c}{7c-21}+\frac{9c}{21c-63}$$

$$\frac{9c}{7c-21}+\frac{9c}{21c-63}=\frac{12c}{7(c-3)}$$

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

2. Add. Simplify, if possible.

$$\frac{3}{y-1}+\frac{1}{(y-1)^2}$$

$$\frac{3}{y-1}+\frac{1}{(y-1)^2}=\frac{3y-2}{(y-1)^2}$$ (Simplify your answer.)

YOU ANSWERED: nothing

3. Simplify.

$$\frac{1-\frac{1}{6}}{1+\frac{5}{6}}$$

$$\frac{1-\frac{1}{6}}{1+\frac{5}{6}}=\frac{5}{11}$$

(Simplify your answer. Type an integer or a fraction.)

YOU ANSWERED: nothing

4. The speed of train A is 14 mph slower than the speed of train B. Train A travels 200 miles in the same time it takes train B to travel 270 miles. Find the speed of each train.

The speed of train A is 40 mph.

The speed of train B is 54 mph.

YOU ANSWERED: nothing

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5. Solve.

$$\frac{3}{5}+\frac{3}{8}=\frac{r}{20}$$

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

A. The solution is $r=\frac{39}{2}$. (Simplify your answer. Type an integer or a fraction.)

B. There is no solution.

YOU ANSWERED: nothing

6. Solve.

$$\frac{3}{7}-\frac{1}{5}=\frac{x}{25}$$

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

A. The solution is $x=\frac{40}{7}$.

(Simplify your answer.)

B. There is no solution.

YOU ANSWERED: nothing

7. Simplify.

$$\frac{\frac{t}{7}-\frac{7}{t}}{\frac{1}{7}+\frac{1}{t}}$$

$$\frac{\frac{t}{7}-\frac{7}{t}}{\frac{1}{7}+\frac{1}{t}}=t-7$$

YOU ANSWERED: nothing

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8. Solve the following equation for x.

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

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

A. The solution is ____. (Simplify your answer.)

B. There are infinitely many solutions.

C. There is no solution.

YOU ANSWERED: nothing

9. The OfficeJet printer can copy Sue's dissertation in 20 min. The LaserJet printer can copy the same document in 10 min. If the two machines work together, how long would they take to copy the dissertation?

$6\frac{2}{3}$ minutes

(Simplify your answer.)

YOU ANSWERED: nothing

10. Electrical current. The current I in an electrical conductor varies inversely as the resistance R of the conductor. The current is $\frac{1}{6}$ ampere when the resistance is 19440 ohms. What is the current when the resistance is 13500 ohms?

The current is $\frac{6}{25}$ ampere.

(Simplify your answer. Type an integer or a fraction.)

YOU ANSWERED: nothing

11. Jack usually mows his lawn in 6 hours. Marilyn can mow the same yard in 7 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.)

YOU ANSWERED: nothing

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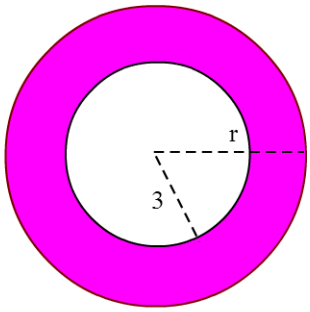
12. Find a polynomial for the shaded area of the figure to the right.



Complete the expression below that can be used to represent the area of the shaded region.

$\pi \cdot (r^2 - 9)$

(Simplify your answer. Type an expression using r as the variable.)

YOU ANSWERED: nothing

13. The wavelength (W) of a wave varies inversely as its frequency (F). A wave with a frequency of 800 kHz (kilohertz) has a length of 280 m. What is the length of a wave with a frequency of 1000 kHz?

The length of the wave is 224 m.

YOU ANSWERED: nothing

14. Solve.

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

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

A. The solution is $x = \frac{10}{13}$.

(Simplify your answer. Type an integer or a fraction.)

B. There is no solution.

YOU ANSWERED: nothing

15. The number N of aluminum cans used each year varies directly as the number of people P using the cans. If 54 people use 17,280 cans in one year, how many cans are used in a city which has a population of 1,523,000?

The number of cans used is 487,360,000.

YOU ANSWERED: nothing

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16. Subtract. Simplify, if possible.

$$\frac{9}{x} - \frac{11}{x}$$

$$\frac{9}{x} - \frac{11}{x} = -\frac{2}{x}$$

YOU ANSWERED: nothing

17. Add. Simplify, if possible.

$$\frac{x-6}{x^2-64} + \frac{6-x}{64-x^2}$$

$$\frac{x-6}{x^2-64} + \frac{6-x}{64-x^2} = \frac{2x-12}{x^2-64}$$

(Simplify your answer.)

YOU ANSWERED: nothing

18. Subtract. Simplify, if possible.

$$\frac{8}{6} - \frac{8}{-6}$$

$$\frac{8}{6} - \frac{8}{-6} = \frac{8}{3}$$

(Type an integer or a fraction.)

YOU ANSWERED: nothing

19. Subtract. Simplify, if possible.

$$\frac{c-3}{21} - \frac{c+4}{7}$$

Which choice is correct?

A. $\frac{-7}{14}$

B. $\frac{-2c-15}{21}$

C. $\frac{-2c-15}{7}$

D. $\frac{21}{-2c-15}$

YOU ANSWERED: nothing

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20. The wavelength (W) of a wave varies inversely as its frequency (F). A wave with a frequency of 300 kHz (kilohertz) has a length of 17 m. What is the length of a wave with a frequency of 100 kHz?

The length of the wave is 51 m.

YOU ANSWERED: nothing