MAT 050 – Prerequisite Material

Show all work for credit. Perform all these calculations without a calculator.

1. Divide. Give your answer in three forms:
	1. In remainder form.
	2. As a mixed number in reduced form.
	3. As a decimal, rounded to the nearest hundredth.

$$250÷14$$

1. Simplify: $2^{3}∙5^{2}$
2. Simplify: $45-4(5-2)^{2}+3∙2$
3. Find the least common multiple (LCM) of 12 and 40.
4. Find the greatest common factor (GCF) of 12 and 40.
5. Find the numerator to form an equivalent fraction with the given denominator: $\frac{3}{8}=\frac{?}{56}$
6. Find the sum and give your result as a reduced fraction: $\frac{5}{8}+\frac{7}{12}+\frac{1}{9}$
7. What is $\frac{9}{16}$ decreased by $\frac{5}{24}$ ?
8. Find the product of $\frac{12}{35}$ and $\frac{14}{9}$
9. What is $\frac{25}{24}$ divided by $\frac{35}{9}$ ?
10. Simplify: $\left(\frac{1}{2}\right)^{2}∙\left(\frac{1}{3}\right)^{3}$
11. Simplify: $\frac{7}{5}-\frac{3}{2}∙\frac{4}{5}+\frac{4}{9}$
12. Find the total of $2.24, 6.5, 19.0005$
13. Find the difference between $10 $and$ 1.65$
14. If you have a $10 bill and buy a candy bar for $1.65 (including tax), how much change will you receive?
15. Subtract: $15.2-8.75$
16. Multiply: $4.56×0.0003$
17. Divide and give your result as a decimal rounded to the nearest tenth: $5.3÷0.007$
18. Convert $\frac{7}{9}$ to a decimal. Do not round. Use “bar” notation if needed.
19. Convert $\frac{4}{7}$ to a decimal rounded to the nearest tenth.
20. Convert $0.025$ to a reduced fraction.
21. Place the correct symbol $(<, =, or >) $between the two numbers: $\frac{2}{3} 0.67$
22. Perform the following calculations:
	1. $-10+2$
	2. $-7-5$
	3. $3-$9
	4. $-5+(-3)$
	5. $9-\left(-4\right)$
	6. $-3-(-7)$
23. Perform the following calculation: $-125-7865$
24. Perform the following calculation: $-485+122$
25. Perform the following calculation: $(-252)×14$
26. Perform the following calculation: $(-500)(-0.08)$
27. Perform the following calculation: $36÷(-4)$
28. Perform the following calculation: $\frac{-15}{-3}$
29. A car can be purchased for $1800 down and 36 monthly payments of $249.99. What is the total price of the car?
30. A landscaper earns $150 for taking a job, plus $75 per day that he works. What are his earnings if he works $7\frac{1}{2}$ days?
31. Sally is $100 overdrawn on her checking account. She deposits $250. What is her balance?
32. Joe is buying ice cream for the preschool class he runs. He plans to give servings of ¾ cup to each student. He buys a 12-cup container of ice cream.
	1. How many ¾ cup servings will the 12-cup container provide?
	2. If there are 20 students, did Joe buy enough ice cream?