

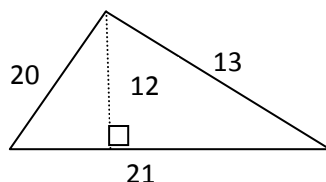
MATH 075 Readiness Check

Work through the questions below to see if you are prepared for taking Math 135. The answer key is at the back of this worksheet.

- If you get at least 18 questions correct, and it takes you less than 2 hours to complete, you are probably ready for Math 135.
- If you get less than 18 questions correct or it takes you more than 2 hours to complete these exercises, then you are not ready for Math 135 and should do one of the following:
 - Take Math 052 or 053. These are self-paced and continuous entry courses so if there's room you can usually register at any time of the year; or
 - Write a placement test to determine your best starting point.

No calculators.

1. Subtract: $3\frac{1}{4} - 2\frac{5}{12}$
2. Divide: $\frac{7}{15} \div \left(-\frac{2}{5}\right)$
3. Evaluate: $\frac{2}{3}\left(4 - \frac{1}{4}\right)$
4. Reduce the fraction $\frac{192}{120}$
5. Evaluate $5.24 - 3.78$
6. Find the perimeter P and area A of a 2.80 cm by 1.70 cm rectangle.
7. Find the area of the triangle. All units are in metres.



8. Evaluate: $3|-8+17|$
9. Simplify: $\frac{-24x}{-8x}$
10. Simplify: $\frac{x}{0.5}$
11. Simplify: $\frac{1}{3}a - \frac{3}{4}b + \frac{5}{6}a - \frac{1}{5}b$

12. True or false? Justify your answer.

i) $\frac{a+b}{c} = \frac{a}{c} + \frac{b}{c}$

ii) $\frac{a+b}{b} = a?$

13. Solve for a : $a - 6 = 15 + 4a$

14. Solve for t : $\frac{t}{3} = \frac{-6}{5}$

15. Solve for w : $23 - \frac{1}{4}w = -5$

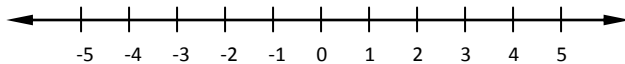
16. Money is invested in a savings account at 2.5% simple interest. After one year, \$30.00 in interest is earned. What principal was invested?

17. Evaluate: $\frac{7^3 \cdot 7^5}{7^6}$

18. Simplify: $(2p^4)^3$

19. Simplify and write your answer with positive exponents: $\frac{1}{x^{-6}}$

20. Solve the inequality and graph it on a number line $3x + 13 \leq 5x + 21$



21. Simplify: $5a(a^2 - 3b - 7)$

22. Simplify: $(x - 5)(x - 3)$

23. Factor: $6w - 24wt$

24. Factor: $x^2 - 5x - 84$

Answer Key

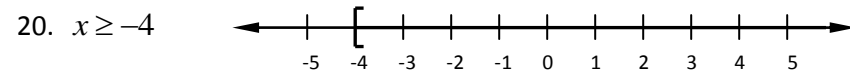
1. $\frac{5}{6}$ 2. $\frac{-7}{6}$ 3. $\frac{5}{2}$ 4. $\frac{8}{5}$ 5. 1.46

6.. $P=9cm$ $A=4.76cm^2$ 7. $126m^2$ 8. 27

9. 3 10. $2x$ 11. $\frac{7}{6}a - \frac{19}{20}b$ 12. i) True ii) False

13. $a = -7$ 14. $t = \frac{-18}{5}$ 15. $w = 112$ 16. \$1200

17. 49 18. $8p^{12}$ 19. x^6



21. $5a^3 - 15ab - 35a$

22. $x^2 - 8x + 15$

23. $6w(1 - 4t)$

24. $(x - 12)(x + 7)$