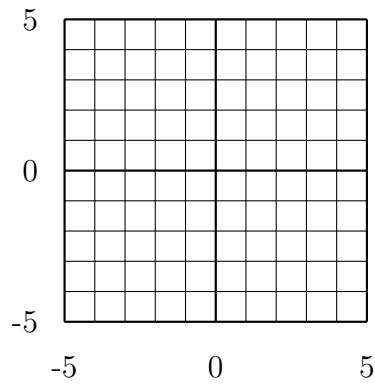


Test 5 Preparation

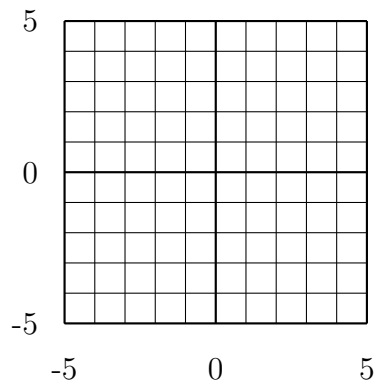
Please complete the following problems. These will be *excellent* preparation for the exam.

1. Simply the expression $\frac{3x + 21}{x^2 + 7x}$.

2. Graph the line $-5x + 4y = 20$.



3. Graph the line $y = -\frac{1}{2}x + 3$.



4. At what points is the rational expression $\frac{3x^2 - 2x + 1}{2}$ not defined?

5. In two similar triangles A and B , a side of length 13 on triangle A corresponds to a side of length 26 on triangle B . If another side of triangle A has length 7, what is the length of the corresponding side on triangle B ? (Try drawing these triangles.)

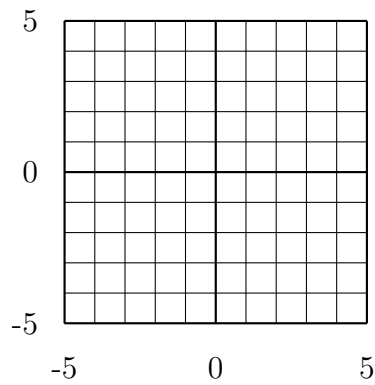
6. Solve $\frac{a}{a-5} = \frac{9}{a-9}$.

7. Add and simplify $\frac{n}{15} + \frac{3}{5}$.

8. Add and simplify $\frac{3z}{2} + \frac{2y}{3z}$.

9. Perform the addition and simplify if possible: $\frac{8}{x+3} + \frac{2}{2x+6}$.

10. Graph both $-x = 3$ and $y = 2$.



11. Divide and simplify: $\frac{(x+4)^2}{x-4} \div \frac{x^2-16}{4x-16}$.

12. Find the value(s) for which the expression $\frac{2z - 1}{3z + 9}$ is undefined.

13. Solve the equation for S : $E + 2P = \frac{1}{S}$.

14. The ratio of the weight of something on Earth to its weight on the Moon is 12:2 (i.e. twelve pounds on the Earth corresponds to two pounds on the Moon). If an astronaut and her gear weigh 30 pounds on the Moon, what does she and her gear weigh on Earth?

15. Complete the table of ordered pairs for the linear equation $3x - 9y = 18$.

x	y
?	1
3	?
?	0
0	?