

- It takes  $h$  hours to mow a lawn. What part of the lawn is mowed in one hour?  
(A)  $h$  (B)  $\frac{h}{x}$  (C)  $hx$  (D)  $\frac{1}{h}$  (E)  $\frac{x}{h}$
- A student has three hours of homework. He works from 8:55 P.M. to 9:15 P.M. What part of his work is left uncompleted?  
(A)  $\frac{1}{3}$  (B)  $\frac{2}{3}$  (C)  $\frac{5}{6}$  (D)  $\frac{4}{5}$  (E)  $\frac{8}{9}$
- Ann can type a manuscript in 10 hours. Florence can type this manuscript in 5 hours. If they both type this manuscript together, it can be completed in  
(A) 2 hrs. 30 min. (B) 3 hrs.  
(C) 3 hrs. 20 min. (D) 5 hrs.  
(E) 7 hrs. 30 min.
- A man can paint a room in three hours. His son Martin requires four hours to do the same job. If they both work together, the job could be done in  
(A)  $1\frac{1}{2}$  hrs. (B)  $1\frac{5}{7}$  hrs. (C) 2 hrs. (D) 3 hrs.  
(E)  $\frac{1}{2}$  hr.
- Joan and Ann finish the housework in 3 hours. Joan could have done it alone in 5 hours. What part of the work was done by Ann?  
(A)  $\frac{1}{4}$  (B)  $\frac{3}{8}$  (C)  $\frac{2}{5}$  (D)  $\frac{3}{5}$  (E)  $\frac{5}{8}$
- It was calculated that 75 men could complete a strip on a new highway in 20 days. When work was scheduled to commence, it was found necessary to send 25 men on another road project. How much longer will it take to complete the strip?  
(A) 10 days (B) 20 days (C) 30 days  
(D) 40 days (E) 60 days
- If  $m$  men take  $d$  days to complete a job, how many men will be needed to complete the job in  $\frac{2}{3}$  of the time?  
(A)  $\frac{2}{3}m$  (B)  $\frac{1}{3}m$  (C)  $1\frac{1}{2}m$  (D)  $\frac{2}{3}md$   
(E)  $1\frac{1}{2}md$
- A boys' club decides to build a cabin. The job can be done by 3 skilled workmen in 20 days or by 5 of the boys in 30 days. How many days will it take if all work together?  
(A) 10 (B) 12 (C)  $12\frac{2}{3}$  (D) 13 (E) 14
- It takes James an hour to do a job that John can do in 40 minutes. One morning they worked together for 12 minutes, then James went away and John finished the job. How long did it take him to finish?  
(A) 8 min. (B) 16 min. (C) 20 min.  
(D) 22 min. (E) 28 min.
- In  $\frac{1}{3}$  of a working day a crew does  $\frac{2}{3}$  of a job. If they work at that rate, what part of a day will be required to complete this job?  
(A)  $\frac{2}{9}$  (B)  $\frac{4}{9}$  (C)  $\frac{1}{2}$  (D)  $\frac{2}{3}$  (E)  $\frac{3}{4}$
- A can do a piece of work in  $r$  days and B, who works faster, can do the same work in  $s$  days. Which of the following expressions represents the number of days it would take the two of them to do the work if they worked together?  
(A)  $\frac{r+s}{2}$  (B)  $r-s$  (C)  $\frac{1}{r} + \frac{1}{s}$  (D)  $\frac{rs}{r+s}$   
(E)  $\frac{r+s}{rs}$
- One man can paint a house in 6 days and another man can do the same job in 2 days less. How many days will it take them if they work together?  
(A)  $1\frac{1}{3}$  (B)  $2\frac{2}{5}$  (C) 3 (D)  $4\frac{3}{5}$  (E) 5
- John did a piece of work in 12 hours 13 minutes. A week later he did the same job in 10 hours 5 minutes. Two weeks later he did it in 9 hours 48 minutes. What was the average amount of time spent in doing the job?  
(A) 10 hrs. 7 min. (B) 10 hrs.  $8\frac{2}{3}$  min.  
(C) 10 hrs. 42 min. (D) 10 hrs. 55 min.  
(E) 32 hrs. 6 min.
- In 6 days 4 men, working at uniform speed for 8 hours per day, complete a job. If these men worked at the same pace for 12 hours per day, the job could be completed in  
(A) 4 days (B) 8 days (C) 12 days  
(D) 16 days (E) 32 days
- One printing press can print one issue of a newspaper in 4 hours. A second press can do the same job in 2 hours. How many hours would it take to print one issue with both presses working?  
(A)  $\frac{3}{4}$  (B)  $1\frac{1}{3}$  (C)  $1\frac{1}{2}$  (D)  $2\frac{2}{3}$  (E) 3

16. Florence can do the housework in 6 hours working alone. When Joan helps her, the housework is done in 4 hours. If Joan did it alone, it would take her (?) more hours to do it than Florence can do it alone?  
(A) 2 (B) 3 (C) 4 (D) 6 (E) 12

17. If  $M$  men can complete a job in  $H$  hours, how long will it take 5 men to do this job?

- (A)  $\frac{5M}{H}$  (B)  $\frac{M}{5H}$  (C)  $\frac{MH}{5}$  (D)  $\frac{5}{MH}$  (E)  $\frac{5H}{M}$

18. Melinda has  $x$  minutes of homework in each of 5 subjects. What part of her homework does she do each hour?

- (A)  $\frac{1}{5x}$  (B)  $\frac{x}{12}$  (C)  $\frac{12}{x}$  (D)  $\frac{1}{12x}$  (E)  $12x$

19. Marc can seal 50 letters a minute. How many minutes would it take him to seal  $x$  letters?

- (A)  $50x$  (B)  $\frac{1}{50x}$  (C)  $\frac{50}{x}$  (D)  $\frac{x}{50}$  (E)  $\frac{1}{x+50}$

20. Five men can paint a house in six days. If two of the men don't work, what will be the increase of time (in days) required to complete the job?

- (A)  $2\frac{2}{3}$  (B)  $3\frac{3}{5}$  (C) 4 (D) 5 (E) 8

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|------|------|------|------|-------|-------|-------|-------|-------|-------|
| 1. D | 3. C | 5. C | 7. C | 9. C  | 11. D | 13. C | 15. B | 17. C | 19. D |
| 2. E | 4. B | 6. A | 8. B | 10. C | 12. B | 14. A | 16. D | 18. C | 20. C |