

Name _____

Solve the problem.

1) A painter can finish painting a house in 5 hours. Her assistant takes 7 hours to finish the same job. How long would it take for them to complete the job if they were working together? 1) _____

2) A painter can finish painting a house in 7 hours. Her assistant takes 9 hours to finish the same job. How long would it take for them to complete the job if they were working together? 2) _____

3) BJ can overhaul a boat's diesel inboard engine in 30 hours. His apprentice takes 60 hours to do the same job. How long would it take them working together assuming no gain or loss in efficiency? 3) _____

4) BJ can overhaul a boat's diesel inboard engine in 20 hours. His apprentice takes 60 hours to do the same job. How long would it take them working together assuming no gain or loss in efficiency? 4) _____

5) Sue can sew a precut dress in 3 hours. Helen can sew the same dress in 2 hours. If they work together, how long will it take them to complete sewing that dress? Give your answer rounded to one decimal place, if necessary. 5) _____

6) Sue can sew a precut dress in 3 hours. Helen can sew the same dress in 2 hours. If they work together, how long will it take them to complete sewing that dress? Give your answer rounded to one decimal place, if necessary. 6) _____

7) Mark and Rachel both work for Smith Landscaping Company. Mark can finish a planting job in 4 hours, while it takes Rachel 3 hours to finish the same job. If Mark and Rachel will work together on the job, and the cost of labor is \$55 per hour, what should the labor estimate be? (Round to the nearest cent, if necessary.) 7) _____

8) Mark and Rachel both work for Smith Landscaping Company. Mark can finish a planting job in 2 hours, while it takes Rachel 4 hours to finish the same job. If Mark and Rachel will work together on the job, and the cost of labor is \$55 per hour, what should the labor estimate be? (Round to the nearest cent, if necessary.) 8) _____

9) One pump can drain a pool in 12 minutes. When a second pump is also used, the pool only takes 8 minutes to drain. How long would it take the second pump to drain the pool if it were the only pump in use? 9) _____

10) One pump can drain a pool in 6 minutes. When a second pump is also used, the pool only takes 2 minutes to drain. How long would it take the second pump to drain the pool if it were the only pump in use? 10) _____

11) One conveyor belt can move 1000 boxes in 12 minutes. Another can move 1000 boxes in 8 minutes. If another conveyor belt is added and all three are used, the boxes are moved in 3 minutes. How long would it take the third conveyor belt alone to do the same job? 11) _____

12) One conveyor belt can move 1000 boxes in 7 minutes. Another can move 1000 boxes in 10 minutes. If another conveyor belt is added and all three are used, the boxes are moved in 3 minutes. How long would it take the third conveyor belt alone to do the same job? 12) _____

13) A baker can decorate the day's cookie supply four times as fast as his new assistant. If they decorate all the cookies working together in 28 minutes, how long would it take for each of them to decorate the cookies working individually? 13) _____

14) A baker can decorate the day's cookie supply four times as fast as his new assistant. If they decorate all the cookies working together in 32 minutes, how long would it take for each of them to decorate the cookies working individually? 14) _____

15) Mark and Rachel both work for Smith Landscaping Company. Mark can finish a planting job in 2 hours, while it takes Rachel 3 hours to finish the same job. If Mark and Rachel will work together on the job, and the cost of labor is \$40 per hour, what should the labor estimate be? (Round to the nearest cent, if necessary.) 15) _____

16) One conveyor belt can move 1000 boxes in 6 minutes. Another can move 1000 boxes in 11 minutes. If another conveyor belt is added and all three are used, the boxes are moved in 3 minutes. How long would it take the third conveyor belt alone to do the same job? 16) _____

17) One conveyor belt can move 1000 boxes in 6 minutes. Another can move 1000 boxes in 9 minutes. If another conveyor belt is added and all three are used, the boxes are moved in 3 minutes. How long would it take the third conveyor belt alone to do the same job? 17) _____

18) A baker can decorate the day's cookie supply four times as fast as his new assistant. If they decorate all the cookies working together in 36 minutes, how long would it take for each of them to decorate the cookies working individually? 18) _____

19) Sue can sew a precut dress in 3 hours. Helen can sew the same dress in 2 hours. If they work together, how long will it take them to complete sewing that dress? Give your answer rounded to one decimal place, if necessary. 19) _____

Answer Key

Testname: WORK

- 1) $2\frac{11}{12}$ hours
- 2) $3\frac{15}{16}$ hours
- 3) 20 hr
- 4) 15 hr
- 5) 1.2 hr
- 6) 1.2 hr
- 7) \$94.29
- 8) \$73.33
- 9) 24 minutes
- 10) 3 minutes
- 11) 8 minutes
- 12) $11\frac{1}{19}$ minutes
- 13) baker: 35 minutes
assistant: 140 minutes
- 14) baker: 40 minutes
assistant: 160 minutes
- 15) \$48.00
- 16) $13\frac{1}{5}$ minutes
- 17) 18 minutes
- 18) baker: 45 minutes
assistant: 180 minutes
- 19) 1.2 hr