NUMERICAL REASONING

1. Harriet has to cover an area measuring 35 x 45 yards with turf. A roll of turf costs $1.10 a square yard. How much will the turf cost?

   A. $1,417
   B. $1,432
   C. $1,732
   D. $1,333

2. Sandra, Winnie, Toni and Carol have been driving the same vehicle at work. Which person has gotten the most miles per gallon from their vehicle?

<table>
<thead>
<tr>
<th></th>
<th>Mileage</th>
<th>Gallons used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandra</td>
<td>829</td>
<td>24</td>
</tr>
<tr>
<td>Winnie</td>
<td>821</td>
<td>25</td>
</tr>
<tr>
<td>Toni</td>
<td>950</td>
<td>28</td>
</tr>
<tr>
<td>Carol</td>
<td>887</td>
<td>26</td>
</tr>
</tbody>
</table>

   A. Sandra
   B. Winnie
   C. Toni
   D. Carol
3. Jo and Frances have to do four tasks between them. The table shows how long it normally takes them to do each task. What tasks should each person do so that both of them finish as quickly as possible?

<table>
<thead>
<tr>
<th>Time each person normally takes to do different tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>task 1</td>
</tr>
<tr>
<td>Jo</td>
</tr>
<tr>
<td>Frances</td>
</tr>
</tbody>
</table>

A. Jo should do tasks 1 and 3 & Frances should do tasks 2 and 4.
B. Jo should do tasks 1 and 2 & Frances should do tasks 3 and 4.
C. Jo should do tasks 3 and 4 & Frances should do tasks 1 and 2.
D. Jo should do tasks 2 and 4 & Frances should do tasks 1 and 3.

4. Tam wants to transport some cartons of equipment in a truck. Each carton measures 2ftx2ftx2ft. How many cartons can Tam transport?

<table>
<thead>
<tr>
<th>Truck</th>
<th>Length (feet)</th>
<th>Height (feet)</th>
<th>Width (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

A. 72
B. 86
C. 144
D. 172

5. Mac is using a piece of equipment at work and wants to know when it will be necessary to change its air filter. The air filter should be changed after 800 hours of use. On average, the equipment is used 3.2 hours a day. The air filter was last changed 117 days ago. When should it be changed again?

A. in 83 days
B. in 103 days
C. in 133 days
D. in 153 days
6. Spence has to do four different jobs as quickly as possible, but can only use two different tools. Which tools should Spence use?

<table>
<thead>
<tr>
<th>Time it takes to do four jobs using different tools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Job 1</td>
</tr>
<tr>
<td>Job 2</td>
</tr>
<tr>
<td>Job 3</td>
</tr>
<tr>
<td>Job 4</td>
</tr>
</tbody>
</table>

A. Tools 1 and 2  
B. Tools 3 and 4  
C. Tools 1 and 3  
D. Tools 2 and 4

7. It is 3:20 pm. Jackie has to drive to an office that is 24 miles away. What time will Jackie arrive driving at 40 miles per hour?

A. 3:46 pm  
B. 3:56 pm  
C. 4:00 pm  
D. 4:06 pm

8. Sam has to give two coats of varnish to the inside of a box measuring 2.5 feet wide, 1.5 feet high and 6 feet long. Sam needs one pint of varnish to cover 30 square feet once. How much varnish will Sam need to cover the inside of the box twice?
A. 0.75 pint  
B. 1 pint  
C. 1.25 pints  
D. 1.5 pints

9. Yesterday Frances spent the day doing four different tasks. Which job will take the most time to complete today?

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Time needed to complete</th>
<th>Time spent on tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1</td>
<td>180 minutes</td>
<td>8.30-10.35</td>
</tr>
<tr>
<td>Task 2</td>
<td>100 minutes</td>
<td>11.00-12.15</td>
</tr>
<tr>
<td>Task 3</td>
<td>75 minutes</td>
<td>13.00-13.55</td>
</tr>
<tr>
<td>Task 4</td>
<td>150 minutes</td>
<td>14.00-16.15</td>
</tr>
</tbody>
</table>

A. Task 1  
B. Task 2  
C. Task 3  
D. Task 4

10. Tam has to cover the floor of a room with plastic sheeting. How many square yards of plastic sheeting will Tam need?

A. 14.75 square yards  
B. 18.75 square yards  
C. 19.25 square yards  
D. 23.75 square yards
11. Nat has just finished a job using building materials. What was the cost value of the materials that Nat used?

<table>
<thead>
<tr>
<th></th>
<th>Paint</th>
<th>Wood</th>
<th>Nails</th>
<th>Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of materials</td>
<td>$9.00 a gallon</td>
<td>$22 yard²</td>
<td>$3 for 80 pieces</td>
<td>$5 per 54-pound bag</td>
</tr>
<tr>
<td>Materials used</td>
<td>2 gallons</td>
<td>5 yard²</td>
<td>120 pieces</td>
<td>324 pounds</td>
</tr>
</tbody>
</table>

A. $164  
B. $167  
C. $182  
D. $194

12. Bill worked on different jobs on Monday and Tuesday. On which job did Bill spend most time?

<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job 1</td>
<td>13:00-15:15</td>
<td>8:00-9:30</td>
</tr>
<tr>
<td>Job 2</td>
<td>8:00-9:45</td>
<td>9:45-11:30</td>
</tr>
<tr>
<td>Job 3</td>
<td>10:00-11:45</td>
<td>12:30-14:45</td>
</tr>
<tr>
<td>Job 4</td>
<td>15:30-17:15</td>
<td>15:00-16:30</td>
</tr>
</tbody>
</table>

A. Job 1  
B. Job 2  
C. Job 3  
D. Job 4
13. Clarke has just checked the stocks of building materials. Which stocks have decreased the most in percentage terms?

| Stocks of Building Materials in Cubic Meters (m$^3$) |
| --- | --- | --- | --- |
| Timber | Cement | Soil | Sand |
| This month | 117m$^3$ | 77m$^3$ | 48m$^3$ | 110m$^3$ |
| Last Month | 210m$^3$ | 156m$^3$ | 94m$^3$ | 211m$^3$ |

A. Timber  
B. Cement  
C. Soil  
D. Sand

14. Marcus has been asked to recommend which electronic tool box to buy. He was asked to evaluate different tool boxes in terms of four different factors. Each factor is equally important. Which tool box will he recommend buying?

<table>
<thead>
<tr>
<th>Tool Boxes</th>
<th>Weather Resistance</th>
<th>Size (in inches)</th>
<th>Weight</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sturdy</td>
<td>★ ★ ★ ★</td>
<td>26</td>
<td>Medium-light</td>
<td>$24.00</td>
</tr>
<tr>
<td>Fixit</td>
<td>★ ★</td>
<td>18</td>
<td>Light</td>
<td>$26.00</td>
</tr>
<tr>
<td>GoMore</td>
<td>★ ★ ★ ★</td>
<td>21</td>
<td>Medium</td>
<td>$34.00</td>
</tr>
<tr>
<td>Mate</td>
<td>★ ★ ★</td>
<td>28</td>
<td>Heavy</td>
<td>$34.00</td>
</tr>
</tbody>
</table>

A. Sturdy  
B. Fixit  
C. GoMore  
D. Mate
15. Coz realizes that at the end of this week it will be necessary to transfer pieces of equipment from one department to another. How many pieces of equipment will it be necessary to transfer to ensure that each department has at least the minimum number required for next week?

**Weekly Equipment Requirements by Department**

<table>
<thead>
<tr>
<th></th>
<th>Garage</th>
<th>Maintenance</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This week</td>
<td>Next week</td>
<td>This week</td>
</tr>
<tr>
<td>Cement mixers</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Stepstools</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Measuring tools</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Scaffolding sets</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

A. 4
B. 5
C. 6
D. 7

16. Alberto normally works 8 hours a day and is paid $40 an hour. He is paid $60 an hour when he works more than 8 hours. How much was he paid for last week?

<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours worked</td>
<td>10</td>
<td>9</td>
<td>8.5</td>
<td>9</td>
<td>8.5</td>
</tr>
</tbody>
</table>

A. $1760
B. $1800
C. $1860
D. $1900
17. Nick and Bill have to lay 240 tiles. Nick can lay 14 tiles an hour and Bill can lay 16. They start work at 8:30 am. At what time will they finish if they have a 45-minute lunch break?

A. 5:00 pm  
B. 5:15 pm  
C. 5:30 pm  
D. 5:45 pm

18. Prins has two jobs to do. There are four different methods of doing the two jobs. Which of the combinations A+F, B+E, C+G or D+H is the cheapest?

<table>
<thead>
<tr>
<th>Methods of doing Job 1</th>
<th></th>
<th></th>
<th></th>
<th>Methods of doing Job 2</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$190</td>
<td>$200</td>
<td>$175</td>
<td>$185</td>
<td>$205</td>
<td>$165</td>
<td>$180</td>
<td>$195</td>
</tr>
<tr>
<td>B</td>
<td>$175</td>
<td>$180</td>
<td>$195</td>
<td>$185</td>
<td>$170</td>
<td>$185</td>
<td>$205</td>
<td>$190</td>
</tr>
</tbody>
</table>

A. A+F  
B. B+E  
C. C+G  
D. D+H

19. Dave has to deliver boxes to three different work areas. The pallet jack can only take a maximum of 8 boxes at a time. How long will it take Dave?

<table>
<thead>
<tr>
<th></th>
<th>Gardening</th>
<th>Electrical</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time there and back (minutes)</td>
<td>6 mins</td>
<td>5 mins</td>
<td>7 mins</td>
</tr>
<tr>
<td>Number of crates to deliver</td>
<td>40</td>
<td>16</td>
<td>12</td>
</tr>
</tbody>
</table>
A. 48 minutes  
B. 47 minutes  
C. 49 minutes  
D. 54 minutes

**20.** It is 10:25 am. Kim is going to have a meeting in five minutes’ time, which will last 15 minutes. Kim has just learned that the colleague will not arrive for another 10 minutes. Kim has a second meeting in another building starting at 11:25 am. How long will Kim have to get to the second meeting?

A. 20 mins  
B. 25 mins  
C. 30 mins  
D. 35 mins
NUMERICAL REASONING Answer Key:

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

1. Chas is driving on the freeway at a safe speed and at a safe distance from the vehicle in front of him. He is going to meet a client. Because there is more traffic than he anticipated, he realizes that he might arrive late. It then starts to rain.

What should Chas do?

Choose the MOST appropriate answer.

A. Slow down a bit.
B. Stay at the same speed.
C. Speed up a bit.
D. Speed up enough to arrive on time.

2. Chas is driving on the freeway at a safe speed and at a safe distance from the vehicle in front of him. He is going to meet a client. Because there is more traffic than he anticipated, he realizes that he might arrive late. It then starts to rain.

What should Chas do?

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A. Slow down a bit.
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C. Speed up a bit.
D. Speed up enough to arrive on time.
3. Robin works in a team with Kelly. Kelly goes home for lunch every day but always comes back to work 10-15 minutes late. For safety reasons, Robin has to wait for Kelly to be there before work can start. One day, while Robin is waiting for Kelly to arrive, he plans the afternoon’s work. Kelly finally arrives 20 minutes late and says, “Sorry I’m a bit late. The traffic was bad again today.”

What should Robin say?

Choose the MOST appropriate answer.

A. I sympathize, but why don’t you leave home earlier?
B. That’s okay, I used the time well today.
C. That probably means the traffic will be bad this evening.
D. Don’t worry about it. No harm is done.

4. Robin works in a team with Kelly. Kelly goes home for lunch every day but always comes back to work 10-15 minutes late. For safety reasons, Robin has to wait for Kelly to be there before work can start. One day, while Robin is waiting for Kelly to arrive, he plans the afternoon’s work. Kelly finally arrives 20 minutes late and says, “Sorry I’m a bit late. The traffic was bad again today.”

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C. That probably means the traffic will be bad this evening.
D. Don’t worry about it. No harm is done.
5. Cameron is about to start working in a building using dangerous and noisy equipment. Cameron’s colleague arrives with three small children and says, “These are my kids. Don’t say anything to anyone, but I’ve got to leave them here with you for a while. I don’t know when I’ll be back.”

What should Cameron say?

Choose the **MOST appropriate** answer.

A. Sorry, but it’s not a good idea to leave them here.
B. Okay, but don’t be long. What are their names?
C. Sure, why not?
D. Okay, I’ll say they’re mine if anybody asks.

6. Cameron is about to start working in a building using dangerous and noisy equipment. Cameron’s colleague arrives with three small children and says, “These are my kids. Don’t say anything to anyone, but I’ve got to leave them here with you for a while. I don’t know when I’ll be back.”

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B. Okay, but don’t be long. What are their names?
C. Sure, why not?
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7. Jenson works in a small team. Jenson notices that his supervisor always gives him the most difficult jobs. Jenson mentions this to the other members of the team. They agree and say that is normal because Jenson is much better at those jobs than they are.

What should Jenson do?

Choose the **MOST appropriate** answer.

A. Ask his supervisor if the team can share the jobs more evenly.
B. Continue to do the more difficult jobs.
C. Offer to train his colleagues how to do the more difficult jobs.
D. Do the difficult jobs less well than before.

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C. Offer to train his colleagues how to do the more difficult jobs.
D. Do the difficult jobs less well than before.
9. Alex is about to start doing a very noisy job and sees someone sitting in the meeting room next door. She tells Alex that she is waiting for two colleagues to have a very short informal meeting. Alex knows that the noise will disturb their meeting. Alex also knows that all other meeting rooms on the same floor of the building are empty.

What should Alex do?

Choose the **MOST appropriate** answer.

A. Explain to the person that their room might become noisy.
B. Wait for the meeting to begin before starting the job.
C. Start the job and see what happens.
D. Suggest that the group should use a room that will not be noisy.

10. Alex is about to start doing a very noisy job and sees someone sitting in the meeting room next door. She tells Alex that she is waiting for two colleagues to have a very short informal meeting. Alex knows that the noise will disturb their meeting. Alex also knows that all other meeting rooms on the same floor of the building are empty.

What should Alex do?

Choose the **LEAST appropriate** answer.

A. Explain to the person that their room might become noisy.
B. Wait for the meeting to begin before starting the job.
C. Start the job and see what happens.
D. Suggest that the group should use a room that will not be noisy.
11. Jody goes to the storage area to collect a piece of equipment for a job that he has to do. He sees that there are three pieces of equipment available. A colleague who is also visiting the storage tells him that one of the three pieces of equipment is not working properly, but he doesn’t know which one.

What should Jody do?

Choose the **MOST appropriate** answer.

A. Try one piece of equipment and if it is working, take it.
B. Try two pieces of equipment and take the one that is working best.
C. Take all three pieces of equipment and use one that works well.
D. Identify the faulty one, label it as such, and take another one.

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C. Take all three pieces of equipment and use one that works well.
D. Identify the faulty one, label it as such, and take another one.
13. Frank is working in the same work unit as Nelly. Their work is sometimes quite physical and requires careful attention to detail. Nelly tells Frank that he has not slept for two nights. At the end of the lunch break, Frank notices that Nelly is almost falling asleep. Frank thinks that Nelly may be a danger to himself and others.

What should Frank do?

Choose the **MOST appropriate** answer.

A. Keep an eye on Nelly when they go back to work.
B. Tell Nelly that he should ask permission to go home.
C. Let Nelly fall asleep and go back to work.
D. Tell Nelly to wake up and get back to work.

14. Frank is working in the same work unit as Nelly. Their work is sometimes quite physical and requires careful attention to detail. Nelly tells Frank that he has not slept for two nights. At the end of the lunch break, Frank notices that Nelly is almost falling asleep. Frank thinks that Nelly may be a danger to himself and others.

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B. Tell Nelly that he should ask permission to go home.
C. Let Nelly fall asleep and go back to work.
D. Tell Nelly to wake up and get back to work.
15. Derry has been working with Robbie for a week. Derry notices that Robbie usually leaves the break room very messy despite the fact that there is a sign saying “All staff must leave the break room clean and tidy.” Today, as they are about to leave, Derry notices that Robbie has spilt some coffee and left breadcrumbs, a paper cup and an empty paper bag on the table.

What should Derry say to Robbie?

Choose the **MOST appropriate** answer.

A. Break times are too short, aren’t they?
B. Don’t you think you should clear up your mess?
C. I don’t want to leave this room in such a mess. I’ll tidy it up.
D. Why are you such a pig?

16. Derry has been working with Robbie for a week. Derry notices that Robbie usually leaves the break room very messy despite the fact that there is a sign saying “All staff must leave the break room clean and tidy.” Today, as they are about to leave, Derry notices that Robbie has spilt some coffee and left breadcrumbs, a paper cup and an empty paper bag on the table.

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B. Don’t you think you should clear up your mess?
C. I don’t want to leave this room in such a mess. I’ll tidy it up.
D. Why are you such a pig?
17. Jessie is asked to do a job using a new piece of equipment but is not given any operating instructions and is not given any training on how to use it either. On the side of the equipment, Jessie sees a safety notice that says, “Refer to instruction manual before using this equipment. Warranty is not valid if machine is used incorrectly.” Jessie has an old piece of equipment that he could use to do the job instead.

What should Jessie do?

Choose the **MOST appropriate** answer.

A. Use the new equipment and see what happens.
B. Use the old piece of equipment to do the job.
C. Try to download the operating instructions from the internet.
D. Remove the safety notice and do the job.

18. Jessie is asked to do a job using a new piece of equipment but is not given any operating instructions and is not given any training on how to use it either. On the side of the equipment, Jessie sees a safety notice that says, “Refer to instruction manual before using this equipment. Warranty is not valid if machine is used incorrectly.” Jessie has an old piece of equipment that he could use to do the job instead.

What should Jessie do?

Choose the **LEAST appropriate** answer.

A. Use the new equipment and see what happens.
B. Use the old piece of equipment to do the job.
C. Try to download the operating instructions from the internet.
D. Remove the safety notice and do the job.
19. Kendall has an inexperienced colleague, Casey. One of them has to do a difficult task and the other one has to assist. Casey says he has not done the difficult task before, but wants to try. Any mistakes may be difficult and expensive to rectify.

What should Kendall do?

Choose the **MOST appropriate** answer.

A. Do the difficult task and get Casey to watch.
B. Watch Casey do the difficult task and give advice.
C. Show Casey how to do the difficult task and then let him try.
D. Leave Casey to do the difficult task and check when he has finished.

20. Kendall has an inexperienced colleague, Casey. One of them has to do a difficult task and the other one has to assist. Casey says he has not done the difficult task before, but wants to try. Any mistakes may be difficult and expensive to rectify.

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B. Watch Casey do the difficult task and give advice.
C. Show Casey how to do the difficult task and then let him try.
D. Leave Casey to do the difficult task and check when he has finished.
SITUATIONAL JUDGMENT Answer Key:

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