Maths Revision show all workings

1. The load to be moved is a number of rectangular blocks of concrete.
    - The rated capacity of the hoist is 2500 kg.
    - The blocks are on a pallet and pallet trolley.
    - The known weight of the pallet and trolley is 120 kg.
    - The operator weighs 90 kg.
    - The dimensions of each block are:
        - height: 200 mm
        - width: 200 mm
        - length: one metre
    - The concrete weighs 2400 kg per cubic metre.

How many blocks can safely be lifted on the hoist?

Show all calculations

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2. The load to be moved is a number of boxes containing fixings.
    - The rated capacity of the hoist is 3000 kg.
    - The operator weighs 110 kg.
    - The boxes are on a pallet and pallet trolley.
    - The known weight of the pallet and trolley is 100 kg.
    - Each box weighs 28 kg.

Including the pallet and pallet trolley, how many boxes can be lifted safely?

Show all calculations

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3. Using a hoist with a rated capacity of 1200 kg, what would be the minimum number of lifts needed to move the following - assuming no pallet, trolley or operator:

   - 35 bags of cement, each weighing 25kg and
   - 3 drums of water, each drum weighing 115 kg.

Show all calculations

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4. The hoist has a rated capacity of 2500 kg.

   The load to be moved is 50 scaffold counterweights

   - Each counterweight weighs 22 kg.
   - The counterweights are on a pallet and pallet trolley that together weigh 220 kg.
   - The operator weighs 110 kg.

Can you move this load on this hoist?

Show all calculations

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5. The load to be moved is a number of rectangular blocks of concrete.
    - The rated capacity of the hoist is 2700 kg.
    - The blocks are on a pallet and pallet trolley.
    - The known weight of the pallet and trolley is 135 kg.
    - The operator weighs 95 kg.
    - The dimensions of each block are:
        - height: 250 mm
        - width: 250 mm
        - length: 1.2 metre
    - The concrete weighs 2400 kg per cubic metre.

How many blocks can safely be lifted on the hoist?

Show all calculations

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6. The load to be moved is a number of boxes containing fixings.
    - The rated capacity of the hoist is 3000 kg.
    - The operator weighs 115 kg.
    - The boxes are on a pallet and pallet trolley.
    - The known weight of the pallet and trolley is 135 kg.
    - Each box weighs 32 kg.

Including the pallet and pallet trolley, how many boxes can be lifted safely?

Show all calculations

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7. Using a hoist with a rated capacity of 1200 kg, what would be the minimum number of lifts needed to move the following - assuming no pallet, trolley or operator:

   - 37 bags of cement, each weighing 25kg and
   - 3 drums of water, each drum weighing 115 kg.

Show all calculations

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8. The hoist has a rated capacity of 1800 kg.

   The load to be moved is 50 scaffold counterweights

   - Each counterweight weighs 27 kg.
   - The counterweights are on a pallet and pallet trolley that together weigh 220 kg.
   - The operator weighs 110 kg.

Can you move this load on this hoist?

Show all calculations

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Maths Revision show all workings

9. The load to be moved is a number of rectangular blocks of concrete.

- The rated capacity of the hoist is 2500 kg.
- The blocks are on a pallet and pallet trolley.
- The known weight of the pallet and trolley is 120 kg.
- The operator weighs 90 kg.
- The dimensions of each block are:
  - height: 200 mm
  - width: 200 mm
  - length: one metre
- The concrete weighs 2400 kg per cubic metre.

How many blocks can safely be lifted on the hoist?

Show all calculations

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10. The load to be moved is a number of boxes containing fixings.

- The rated capacity of the hoist is 3000 kg.
- The operator weighs 110 kg.
- The boxes are on a pallet and pallet trolley.
- The known weight of the pallet and trolley is 100 kg.
- Each box weighs 28 kg.

Including the pallet and pallet trolley, how many boxes can be lifted safely?

Show all calculations

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11. Using a hoist with a rated capacity of 1200 kg, what would be the minimum number of lifts needed to move the following - assuming no pallet, trolley or operator:

- 35 bags of cement, each weighing 25kg and
- 3 drums of water, each drum weighing 115 kg.

Show all calculations

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12. The hoist has a rated capacity of 2500 kg.

The load to be moved is 50 scaffold counterweights

- Each counterweight weighs 22 kg.
- The counterweights are on a pallet and pallet trolley that together weigh 220 kg.
- The operator weighs 110 kg.

Can you move this load on this hoist?

Show all calculations

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