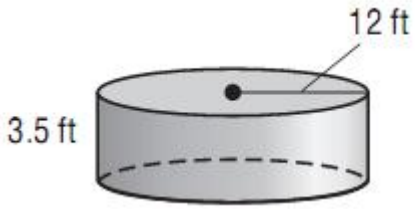
Gaaffilee Shaakalaa Math312

Gaaffileen 1 hanga 11 jiran gaaffilee filannooti. Deebii keetiif sababa kenni. Gaaffileen hafan gaaffilee hojiin agarsiisiti sirriitti hojjadhu.

1. Kanneen armaan gadii keessaa dirra cinaachaa piriizimii ta'uu kan danda'u kami?
   A. Rog-sadee B. paraaleelogiraamii C. Peentaagoonii D. Hunduu ta'uu danda'a.
2. Kanneen armaan gadii keessaa hundee piriizimii ta'uu kan danda'u kami?
   A. Rog-sadee B. paraaleelogiraamii C. Peentaagoonii D. Hunduu ta'uu danda'a.
3. Bal'iinni dirra cinaachaa siliindarii armaan gadii meeqa?($\pi = 3.14$) godhuu fudhu.



   A. 263.76ft^2 B. 527.52ft^2 C. 1334.76ft^2 D. 1582.56ft^2

4. Raadiyeesiin koonii sirrii hundee 6ft fi oleen shaffaaxaa 10ft ta'e bal'inni dirra cinacha koonii kanaa meeqa?

   A. 48π *B.* 60π *C.* $12\pi\sqrt{34}$ *D.* 384π

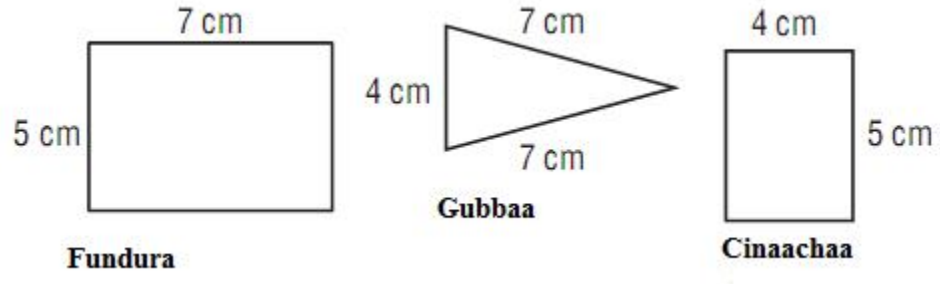
5. Qabeeen jaboo armaan gadii meeqa?



   A. $\frac{2\pi}{3}\sqrt{6}in^3$ *B.* $\frac{5\pi}{3}in^3$ *C.* $\frac{\pi}{3}\sqrt{21}in^3$ *D.* $\frac{4\pi}{3}\sqrt{21}in^3$

6. Piriizimiin rog-sadawaa fuulota meeqaqaba?
   A. 3 B. 4 C. 5 D.6

7. Qabeen jaboo wantoota armaan gadiitiin hojjatamu meeqa?



A. 59.1cm^3 B. 67.1cm^3 C. 68.4cm^3 D. 103.4cm^3

8. Raadiyeesiin isfiirii 3cm irraa gara 5cm tti yoo dabale, dhibbantaan qabee xiqqa gara qabee guddaa meeqa?

A. 21.6% B. 40% C. 60% D. 463%

9. Sararri tokko isfiirii bakka meeqatti qaxxaamuruu danda'a?

a. Bakka tokkotti B. Bakka lamatti C. Qaxxaamuruu dhiisuu danda'a D. Hundaa

10. Isfiirii keessatti geengoowwan guddaan lama bakka meeqatti walqaxxaamuru?

A. 1 B. 2 C. Bakka baay'eetti D. wal hinqaxxaamuran

11. Kanneen armaan gadii keessaa soba kan ta'e kami?

A. Raadiyeesiin isfiirii waliitti galoo raadiyeesii geengoo guddaati.

B. Isfiirii keessatti geengoowwan guddaa lama tuqaa tokko irratti walqaxxaamuran.

C. Koordiin dheeran isfiirii handhuura geengoo keessa darba.

D. Diyaametiroonni isfiirii tokkoo wliitti galoodha.

12. Kofti diheediraalii hirkoo walii ta'an lama $(10x-2)^o$ fi $(8x+2)^o$ yoo ta'an safaroota kofoota kanaa barbaadi.

13. Tuqaan P tokko $3\sqrt{3}$ cm fuulota lamaan kofa diheediraalii irraa yoo fagaateefi 6cm qarqara diheediraalii kanaa irraa yoo fagaate, safara kofa diheediraalii kanaa barbaadi.

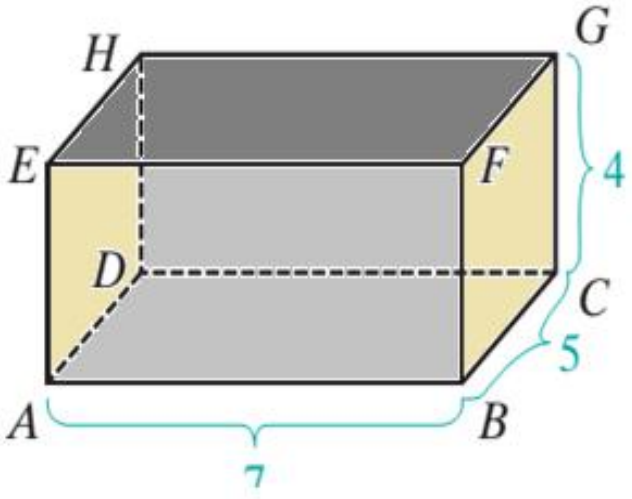
14. (-, -, -) oktantii meeqaffaa keessatti argama?

15. P(-3,4,-5) fi Q(4, 6,-7) tuqaalee samii keessaa yoo ta'an fageenya gidduu isaanii jiru barbaadi.

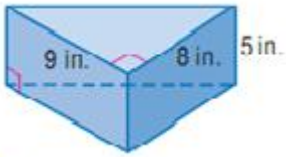
16. Mallattoo oktaantii saddeettanuu adda baasii barreessi.

17. (-3, -1, 6) oktaantii meeqaffaa keessatti argama?

18. Piriizimiin sirrii reektaangulawaa armaan gaditti kennameef:
    a. dheerina sarbii isaa barbaadi.
    b. baay'ina qarqaroota cinaaachaafi qarqroota hundaa barbaadi.

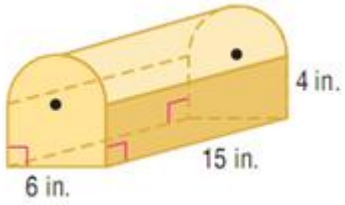


19. Bal'ina dirraa cinaachaa, bal'ina dirraa fi qabee piriizimii sirrii rog-sadawaa armaan gadii barbaadi.

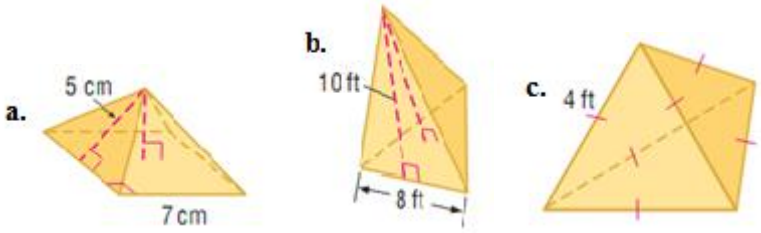


20. Bal'ina dirra cinaachaa, bal'ina dirra fi qabee piriizimii sirrii heksaagoonii sirnawaa dheerinni roga isaa $6\sqrt{3}$ cm fi oleen piriizimichaa 4cm ta'ee barbaadi.
21. Bal'ina dirraa cinaachaa, bal'ina dirra fi qabee piriizimii sirrii rektaangulawaa dheerinni isaa 4cm, dalgeen isaa 8cm fi oleen isaa 12cm ta'ee barbaadi.
22. Bal'inni dirra kiyuubiii 864in^2 yoo ta'e dheerina qarqara roga cinachaa barbaadi.
23. Bal'ina dirraa cinaachaa, bal'ina dirraa fi qabee siliindarii sirrii diyaametiriin hundee isaa 13.6ft fi oleen siliindariichaa 1.9ft ta'ee barbaadi.
24. Bal'inni dirra siliindarii sirrii $340\pi cm^2$ fi oleen isaa 7cm yoo ta'e raadiyeesii isaa barbaadi.

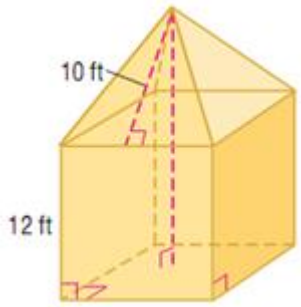
25. Bal'ina dirra jaboo makoo armaan gadii barbaadi.



26. Bal'ina dirra cinaachaa, bal'ina dirraafi qabee piraamidoota sirnawaa armaan gadii barbaadi.

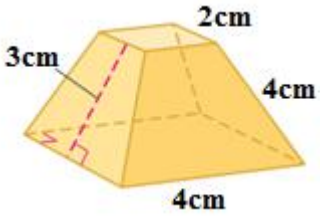


27. Jaboon armaan gadii makoo kiyuubiifi piraamidiiti. Hundeen jaboo kanaa hundee kiyuubiiti. Kanneen armaan gadii barbaadi.



a. Olee jboo
b. Bal'ina dirra cinaachaa
c. Bal'in dirraa
d. Bal'ina dirra cinaachaa guddaa kan qabu piraamidiidha moo kiyuubiidha?

28. Bal'ina dirra cinaachaa farastamii armaan gadii barbaadi.

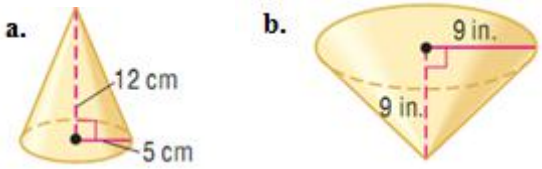


29. Hundeen jalaa firastamii piraamidii sirnaawaa iskuweerii rogni isaa 8cm fi hundeen irraa immoo iskuweerii rogni isaa 5cm ta'ee fi oleen shaffaaxaa isaa 6cm yoo ta'e;

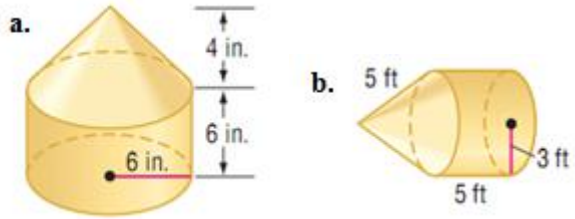
a) Bal'ina dirra cinaachaa b) bal'ina dirraa

b. qabee firastamichaa barbaadi.

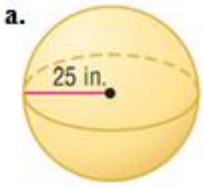
30. Koonota sirrii armaan gadiitiif bal'ina dirra cinaachaa, bal'ina dirraa fi qabee barbaadi.



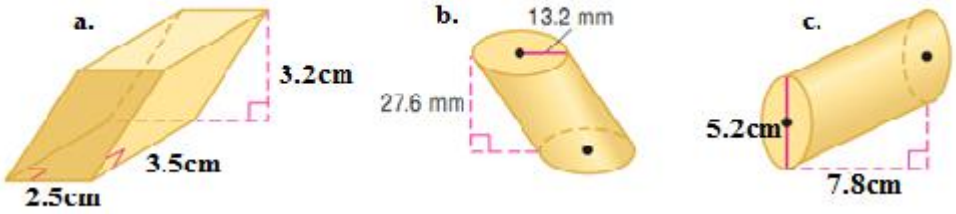
31. Konii sirrii oleen isaa 16in fi oleen shaffaaxaa isaa immoo 18in ta'eef, bal'ina dirra cinaachaa, bal'ina dirraafi qabee barbaadi.
32. Konii sirrii bal'inni dirraa 1020cm^2 fi raadiyeesiin isaa 14.5cm ta'eeef olee shaffaaxaa barbaadi.
33. Makoowwan jaboo armaan gdiitiif, bal'ina dirra cinaachaa, bal'ina dirraafi qabee barbaadi.



34. Bal'ina dirraafi qabee isfiiroota armaan gadii barbaadi.

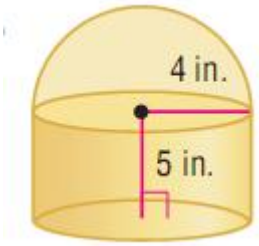


35. Qabee piriizimotaafi silindaroota shaffaaxaa armaan gadii barbaadi.



36. Qabeen siliindarii 615.8 cm^3 fi oleen isaa 4cm ta'eef dheerina diiyaameetirii isaa barbaadi.
37. Qabeen piriizimii reektaangulawaa 1152 in^3 fi bal'inni hundee 64in^2 yoo ta'e, dheerina qarqara piriizimii kanaa barbaadi.

38. Isfiirii raadiyeesiin isaa 7.62cm ta’eef qabee barbaadi.
39. Isfiirii walakkaa raadiyeesiin isaa 8.4cm ta’eef qabee barbaadi.
40. Qabee jaboo makoo armaan gadii meeqa? $\pi \approx 3.14159265$ deebii gara mana kurnaffaatti siqsi.



Koroonaa irraa waaqayyoo si haabaraaru, Atis dabalatan wantoota armaan gadii raawwadhu:

- Harka kee saamunaan dhiqadhu.
- Fageenya qaamaa kee eegi.
- Rakkoo humnaa olii yoo hinta’in alatti mana hinbahin.

Deebii Gaaffilee Shaakalaa Math 312

1. B 2. D 3. A 4. B 5. A 6. C 7. B 8.A 9. D 10. B 11. B

12. 98 fi 82 13. 120^o 14. 7^{ffaa} 15. $\sqrt{57}$

16. Oktaantii :1^{ffaa} (+, +, +), 2^{ffaa} (-, +, +), 3^{ffaa} (-, -, +), 4^{ffaa}:(+, -, +), 5^{ffaa} (+, +, -),
6^{ffaa} (-, +, -), 7^{ffaa} (-, -, -), 8^{ffaa} (+, -, -)

17. Oktaantii 3^{ffaa} keessatti

18. a. $3\sqrt{10}$ b. Baay'inni qrqaroota cinachaa 4, baay'inni qarqaroota hundaa 12

19. $Bdc = (85 + 5\sqrt{145})in^2$, $Bd = (157 + 5\sqrt{145})in^2$, V = 180in^3

20. $Bdc = 144\sqrt{3}cm^2$, $Bd = 468\sqrt{3}cm^2$, $V = 648\sqrt{3}cm^3$

21. Bdc = 288cm^2, Bd = 352cm^2, V = 384cm^3 22. 12

23. $Bdc = 25.84\pi ft^2$, $Bd = 118.32\pi ft^2$, $V = 87.856\pi ft^3$, 24. r = 10 25. 427.6m^2

26. a. Bdc = 70in^2, Bd = 119in^2, $V = \frac{49}{3}\sqrt{12.75}cm^3$

b. Bdc = 120ft^2 $Bd = (120 + 16\sqrt{3})ft^2$ $V = \frac{32\sqrt{66}}{3}ft^3$

c. $Bdc = 12\sqrt{3}ft^2$ $Bd = 16\sqrt{3}ft^2$ $V = 4\sqrt{3}ft^3$

27. a oleen = 20ft b. Bdc = 816ft^2 c. **Bd = 960ft^2 d. Bdc kiyuubii 576ft^2 fi Bdc piraamidii = 240ft^2 waan ta'eef Bdc kiyuubiitu irra guddaadha.**

28. 36cm^2

29. a. Bdc = 156cm^2 b. Bd = 245cm^2 c. $V = 43\sqrt{33.75}cm^3$

30. a. $Bdc = 65\pi cm^2$, $Bd = 90\pi cm^2$, $V = 100\pi cm^3$

b. $Bdc = 81\sqrt{2}\pi in^2$, $Bd = 81\pi(\sqrt{2} + 1)in^2$, $V = 243\pi in^3$

31. $Bdc = 36\sqrt{17}\pi in^2$, $Bd = (36\sqrt{17} + 68)\pi in^2$, $V = \frac{1088\pi}{3} in^3$

32. $l = \left(\frac{1020 - 210.25\pi}{14.5\pi}\right) m$

33. a. $Bdc = (72 + 6\sqrt{52})\pi in^2$, $Bd = (108 + 6\sqrt{52})\pi in^2$, $V = 264\pi in^3$

b. $Bdc = 45\pi ft^2$, $Bd = 54\pi ft^2$, $V = 81\pi ft^3$

34. $Bd = 2500\pi in^2$, $V = \frac{62500\pi}{3} in^3$

35. *a.* $\mathrm{V} = 28\mathrm{ft}^3$ *b* $\mathrm{V} = 4809.024\pi mm^3$ *c.* $\mathrm{V} = 52.728\pi \mathrm{yd}^3$

36. $d = 2\sqrt{\frac{153.95}{\pi}} m$

37. 18in

38. $V \approx 589.9\pi m^3$

39. $V = 395.136\pi yd^3$

40. $V = \frac{368\pi}{3} in^3$