شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية

حل مراجعة الوحدة السابعة المثلثات قائمة الزاوية وحساب المثلثات

التواصل الاجتماعي بحسب الصف العاشر العام

روابط مواد الصف العاشر العام على تلغرام

التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف العاشر العام والمادة رياضيات في الفصل الثاني

1	حل أسئلة الامتحان النهائي الالكتروني - بريدج
2	دليل تصحيح أسئلة الامتحان الورقي - بريدج
3	أسئلة الامتحان النهائي الورقي - بريدج
4	حل مراجعة نهائية وفق الهيكل الوزاري
5	حل مراجعة الوحدة السابعة المثلثات قائمة الزاوية وحساب المثلثات

مراجعة الرياضيات الوحدة 7 محلولة

إيجاد الوسط الهندسي بين عددين.

Find the geometric mean between two numbers.

Find the geometric mean between each pair of numbers.

1) 81 and 4 الوسط الهندسي

$\sqrt{81 \times 4} = 18$

a) 15
b) 16
c) 18
d) 14

==========

2) 25 and 16

$\sqrt{25 \times 16} = 20$

a) 20
b) 18
c) 17
d) 16

==========

3) 20 and 25

$\sqrt{20 \times 25} = 10\sqrt{5}$

a) 10
b) $10\sqrt{5}$
c) $5\sqrt{10}$
d) $2\sqrt{5}$

==========

4) 36 and 24

$\sqrt{36 \times 24} = 12\sqrt{6}$

a) 10
b) $12\sqrt{6}$
c) $2\sqrt{6}$
d) $3\sqrt{6}$

5) 12 and 2.4

$\sqrt{12 \times 2.4} = \frac{12\sqrt{5}}{5}$

a) $\frac{12\sqrt{5}}{5}$

b) $12\sqrt{5}$

c) $2\sqrt{5}$

d) $\sqrt{5}$

==========

6) 18 and 1.5

$\sqrt{18 \times 1.5} = 3\sqrt{3}$

a) $\sqrt{3}$

b) $3\sqrt{3}$

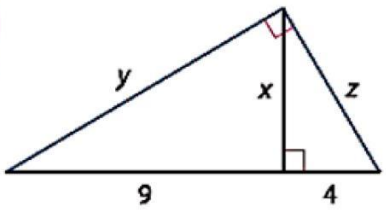
c) $2\sqrt{3}$

d) $5\sqrt{3}$

==========

Find x, y, and z.

1)



$x = \sqrt{9 \times 4} = 6$

$y = \sqrt{9(9+4)} = 3\sqrt{13}$

$Z = \sqrt{4(4+9)} = 2\sqrt{13}$

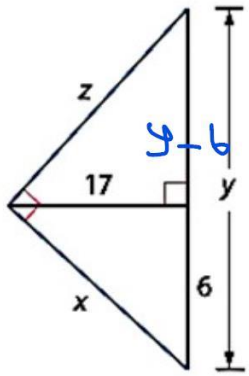
a) $x = 6, y = 2\sqrt{13}, z = 3\sqrt{13}$

b) $x = 6, y = \sqrt{13}, z = 3\sqrt{13}$

c) $x = 6, y = \sqrt{13}, z = \sqrt{13}$

d) $x = 6, y = 3\sqrt{13}, z = 2\sqrt{13}$

2)



a) $x = 18, y = 53.2, z = 50.1$

b) $x = 18, y = 53.2, z = 51.1$

c) $x = 18, y = 54.2, z = 51.1$

d) $x = 16, y = 53.2, z = 50.1$

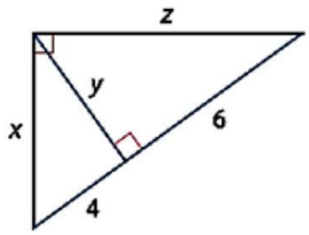
$17 = \sqrt{6(y-6)} \Rightarrow y = 54.2$

$x = \sqrt{6 \times y} = \sqrt{6 \times 54.2} = 18$

$Z = \sqrt{(y-6)(y)} = \sqrt{(54.2-6)(54.2)} = 51.1$

==========

3)



a) $x = 4\sqrt{10}, y = 3\sqrt{6}, z = 2\sqrt{15}$

b) $x = 3\sqrt{10}, y = 3\sqrt{6}, z = 5\sqrt{15}$

c) $x = 2\sqrt{10}, y = 2\sqrt{6}, z = 2\sqrt{15}$

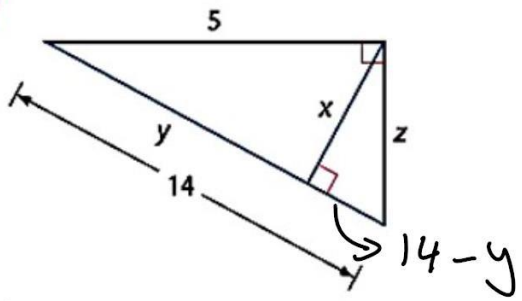
d) $x = 4\sqrt{10}, y = 3\sqrt{6}, z = 5\sqrt{15}$

$y = \sqrt{4 \times 6} = 2\sqrt{6}$

$Z = \sqrt{6(6+4)} = 2\sqrt{15}$

$x = \sqrt{4(4+6)} = 2\sqrt{10}$

4)



a) $x = 4.7, y = 1.8, z = 13.1$

b) $x = 4.7, y = 2.8, z = 13.1$

c) $x = 5.7, y = 2.8, z = 13.1$

d) $x = 5.7, y = 2.8, z = 13.7$

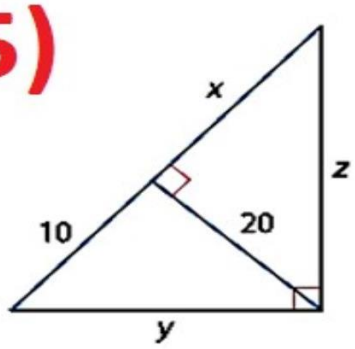
$5 = \sqrt{y(14)} \Rightarrow y = 1.8$

$x = \sqrt{y(14-y)} = \sqrt{(1.8)(14-1.8)} = 4.7$

$Z = \sqrt{(14-y)(14)} = \sqrt{(14-1.8)(14)} = 13.1$

==========

5)



a) $x = 30, y = 9\sqrt{5}, z = 15\sqrt{5}$

b) $x = 40, y = 9\sqrt{5}, z = 15\sqrt{5}$

c) $x = 40, y = 10\sqrt{5}, z = 20\sqrt{5}$

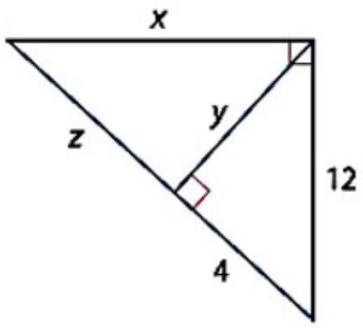
d) $x = 40, y = 10\sqrt{5}, z = 15\sqrt{5}$

$20 = \sqrt{(x)(10)} \Rightarrow x = 40$

$y = \sqrt{10(10+x)} = \sqrt{10(10+40)} = 10\sqrt{5}$

$Z = \sqrt{x(x+10)} = \sqrt{40(40+10)} = 20\sqrt{5}$

6)



a) $x = 24\sqrt{2}, y = 8\sqrt{2}, z = 30$

b) $x = 20\sqrt{2}, y = 8\sqrt{2}, z = 30$

c) $x = 20\sqrt{2}, y = 10\sqrt{2}, z = 30$

d) $x = 24\sqrt{2}, y = 8\sqrt{2}, z = 32$

$12 = \sqrt{4(4+z)} \Rightarrow z = 32$

$x = \sqrt{z(z+4)} = \sqrt{32(32+4)} = 24\sqrt{2}$

$y = \sqrt{4 \times z} = \sqrt{4 \times 32} = 8\sqrt{2}$

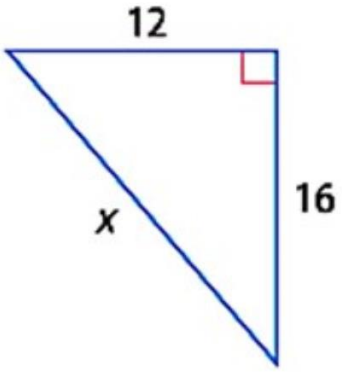
==========

استخدام نظرية فيثاغورس.

Use the Pythagorean Theorem

Find x.

1)



$x = \sqrt{16^2 + 12^2}$

$x = 20$

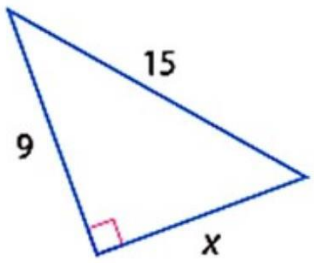
a) 20

b) 15

c) 16

d) 14

2)



$x = \sqrt{15^2 - 9^2}$

$x = 12$

a) 10

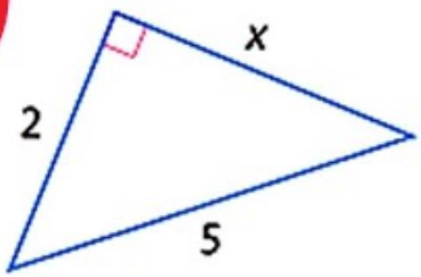
b) 11

c) 9

d) 12

---

3)



$x = \sqrt{5^2 - 2^2}$

$= \sqrt{21}$

a) $2\sqrt{21}$

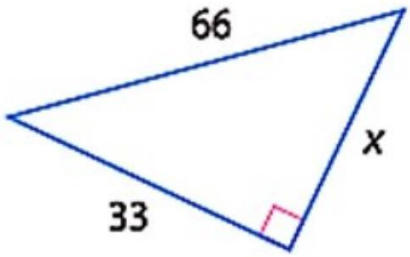
b) $3\sqrt{21}$

c) $\sqrt{21}$

d) $4\sqrt{21}$

---

4)



$x = \sqrt{66^2 - 33^2}$

$x = 33\sqrt{3}$

a) $3\sqrt{3}$

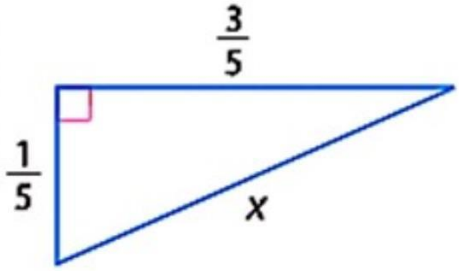
b) $33\sqrt{3}$

c) $3\sqrt{33}$

d) $5\sqrt{33}$

---

5)



$x = \sqrt{\left(\frac{1}{5}\right)^2 + \left(\frac{3}{5}\right)^2}$

$= \frac{\sqrt{10}}{5}$

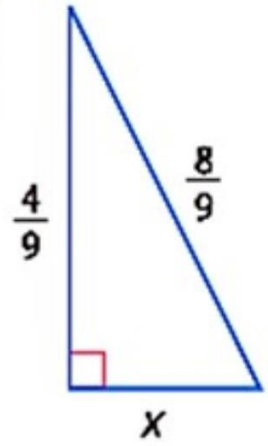
a) $\frac{\sqrt{10}}{5}$

b) $\frac{2\sqrt{2}}{3}$

c) $2\sqrt{3}$

d) $2\sqrt{2}$

6)



$$x = \sqrt{\left(\frac{8}{9}\right)^2 - \left(\frac{4}{9}\right)^2}$$

$$x = \frac{4\sqrt{3}}{9}$$

a) $\frac{4\sqrt{3}}{9}$

b) $\frac{4\sqrt{3}}{5}$

c) $4\sqrt{3}$

d) $\frac{4\sqrt{3}}{6}$

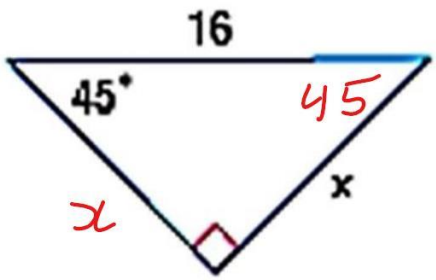
==========

استخدام خصائص المثلثات بزوايا 45° -45° -90°.

Use the properties of 45° -45° - 90° triangles

Find x.

1)



$$\frac{16}{\sqrt{2}} = \frac{x\sqrt{2}}{\sqrt{2}}$$

$$x = 8\sqrt{2}$$

a) $8\sqrt{2}$

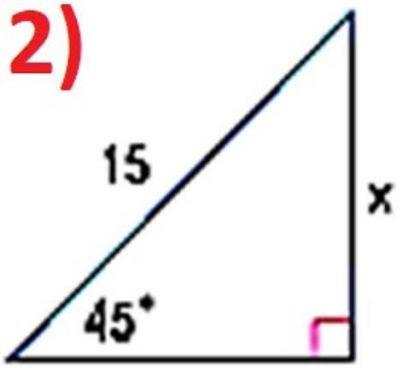
b) $6\sqrt{2}$

c) $5\sqrt{2}$

d) $4\sqrt{2}$

==========

2)



$$\frac{15}{\sqrt{2}} = \frac{x\sqrt{2}}{\sqrt{2}}$$

$$x = \frac{15\sqrt{2}}{2}$$

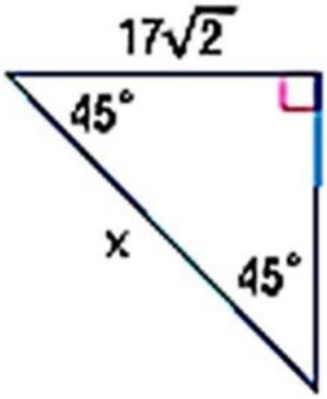
a) $\frac{15\sqrt{2}}{2}$

b) $\frac{13\sqrt{2}}{2}$

c) $15\sqrt{2}$

d) $13\sqrt{2}$

3)



$x = 17\sqrt{2}\left(\frac{\sqrt{2}}{2}\right)$

$x = 34$

a) 36

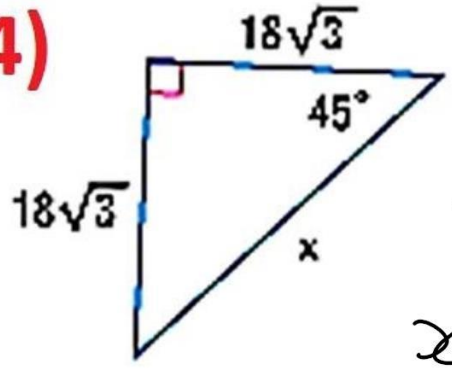
b) 34

c) 32

d) 31

==========

4)



$x = (18\sqrt{3})\left(\frac{\sqrt{2}}{2}\right)$

$x = 18\sqrt{6}$

a) $18\sqrt{6}$

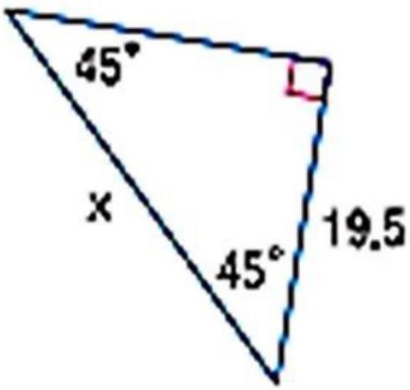
b) $15\sqrt{6}$

c) $14\sqrt{6}$

d) $12\sqrt{6}$

==========

5)



$x = 19.5\left(\frac{\sqrt{2}}{2}\right)$

$x = 19.5\sqrt{2}$

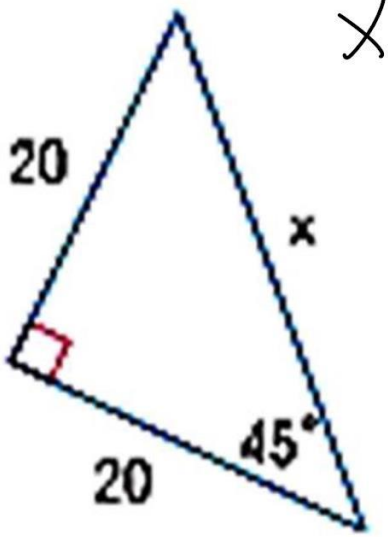
a) $19\sqrt{2}$

b) $17\sqrt{2}$

c) $19.5\sqrt{2}$

d) $18\sqrt{2}$

6)



$x = 20\sqrt{2}$

a) $19\sqrt{2}$

b) $17\sqrt{2}$

c) $20\sqrt{2}$

d) $18\sqrt{2}$

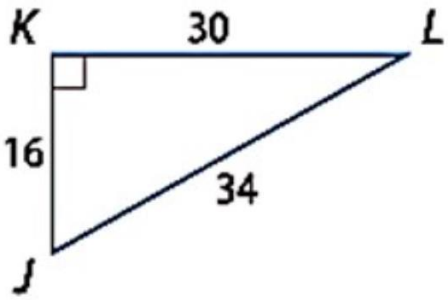
==========

ايجاد النسب المثلثية باستخدام مثلثات قائمة الزاوية.

Find trigonometric ratios using right triangles.

Find sin *J*, cos *J*, tan *J*, sin *L*, cos *L*, and tan *L*. Express each ratio as a fraction and as a decimal to the nearest hundredth.

1)



$\tan J = \frac{30}{16}$

$\sin L = \frac{16}{34}$

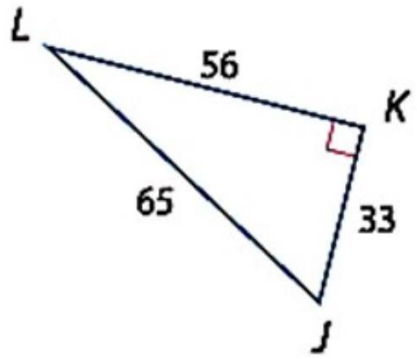
$\cos L = \frac{30}{34}$

$\sin J = \frac{30}{34}$

$\cos J = \frac{16}{34}$

$\tan L = \frac{16}{30}$

2)



$\sin J = \frac{56}{65}$, $\cos J = \frac{33}{65}$

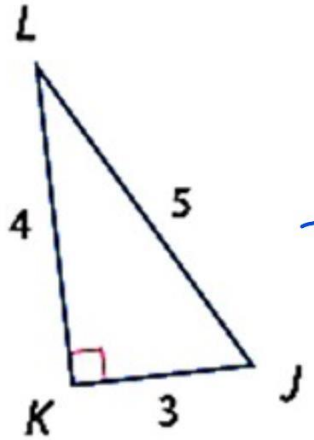
$\tan J = \frac{56}{33}$

$\sin L = \frac{33}{65}$, $\cos L = \frac{56}{65}$

$\tan L = \frac{33}{56}$

==========

3)



$\sin J = \frac{4}{5}$, $\cos J = \frac{3}{5}$

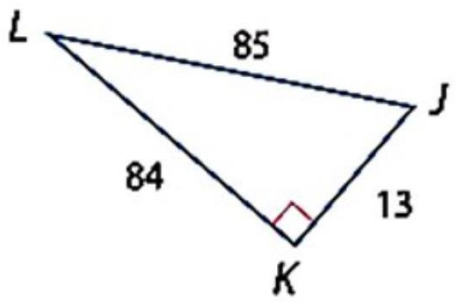
$\tan J = \frac{4}{3}$

$\sin L = \frac{3}{5}$,

$\cos L = \frac{4}{5}$

$\tan L = \frac{3}{4}$

4)



$\sin J = \frac{84}{85}$

$\cos J = \frac{13}{85}$

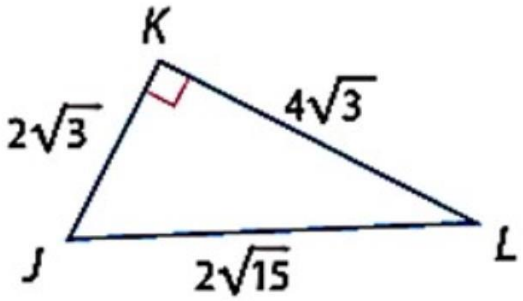
$\tan J = \frac{84}{13}$

$\sin L = \frac{13}{85}$, $\cos L = \frac{84}{85}$,

$\tan L = \frac{13}{84}$

==========

5)



$\sin J = \frac{4\sqrt{3}}{2\sqrt{15}} = \frac{2\sqrt{5}}{5}$

$\cos J = \frac{2\sqrt{3}}{2\sqrt{15}} = \frac{\sqrt{5}}{5}$

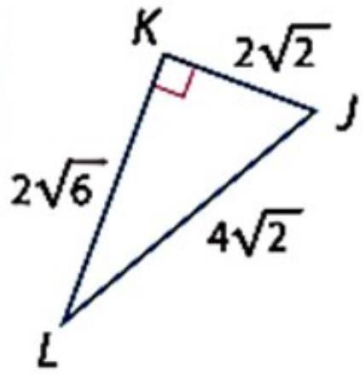
$\tan J = \frac{4\sqrt{3}}{2\sqrt{3}} = 2$

$\sin L = \frac{2\sqrt{3}}{2\sqrt{15}} = \frac{\sqrt{5}}{5}$

$\cos L = \frac{4\sqrt{3}}{2\sqrt{15}} = \frac{2\sqrt{5}}{5}$

$\tan L = \frac{2\sqrt{3}}{4\sqrt{3}} = \frac{1}{2}$

6)



$$\sin J = \frac{2\sqrt{6}}{4\sqrt{2}} = \frac{\sqrt{3}}{2}$$

$$\cos J = \frac{2\sqrt{2}}{4\sqrt{2}} = \frac{1}{2}$$

$$\tan J = \frac{2\sqrt{6}}{2\sqrt{2}} = \sqrt{3}$$

$$\sin L = \frac{2\sqrt{2}}{4\sqrt{2}} = \frac{1}{2}$$

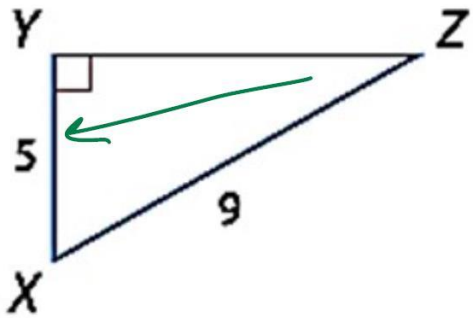
$$\cos L = \frac{2\sqrt{6}}{4\sqrt{2}} = \frac{\sqrt{3}}{2}$$

$$\tan L = \frac{2\sqrt{2}}{2\sqrt{6}} = \frac{\sqrt{3}}{3}$$

==========

TOOLS **Use a calculator to find the measure of $\angle Z$ to the nearest tenth.**

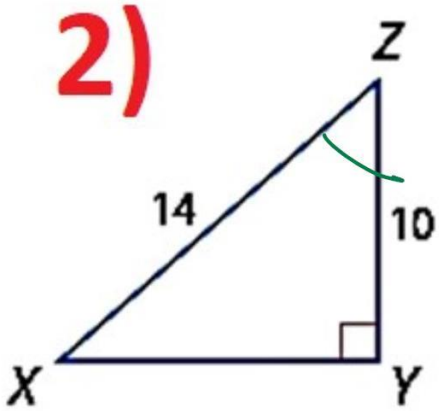
1)



$$Z = \sin^{-1}\left(\frac{5}{9}\right)$$

$$Z = 33.7^\circ$$

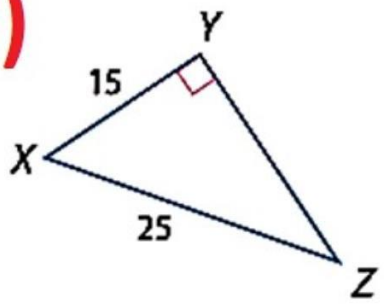
2)



$Z = \cos^{-1}\left(\frac{10}{14}\right) \approx 44.4$

---

3)



$Z = \sin^{-1}\left(\frac{15}{25}\right) = 36.9^{\circ}$