

حل أوراق عمل درس Parts Corresponding and Congruence منهج ريفيل



تم تحميل هذا الملف من موقع المناهج الإماراتية

موقع المناهج ← المناهج الإماراتية ← الصف الثامن ← رياضيات ← الفصل الثالث ← ملفات متنوعة ← الملف

تاريخ إضافة الملف على موقع المناهج: 09:07:33 2025-05-07

ملفات اكتب للمعلم اكتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل
منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي للمدرس

المزيد من مادة
رياضيات:

التواصل الاجتماعي بحسب الصف الثامن



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف الثامن والمادة رياضيات في الفصل الثالث

حل أوراق عمل درس Transformations and Similarity منهج ريفيل

1

مراجعة الاختبار المركزي الأول متبوعة بالإجابات

2

أسئلة الامتحان النهائي القسم الالكتروني منهج بريدج مع الحلول

3

مقرر الدروس المطلوبة الفصل الثالث منهج بريدج

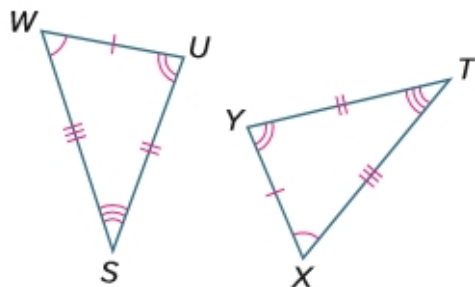
4

حل أوراق عمل الوحدة العاشرة أدوات الهندسة

5

9-2 Congruence and Corresponding Parts

1. Write congruence statements comparing the corresponding parts in the set of congruent figures.



SOLUTION:

Use the matching arcs and tick marks to identify the corresponding parts.

Corresponding angles: $\angle W \cong \angle Y$, $\angle U \cong \angle T$, $\angle S \cong \angle X$

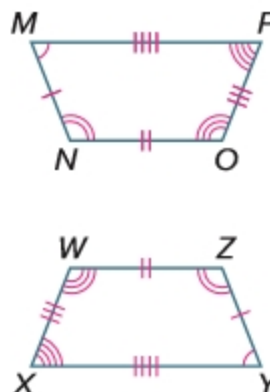
Corresponding sides:

$$\overline{WU} \cong \overline{YT}, \overline{US} \cong \overline{TX}, \overline{WS} \cong \overline{YX}$$

ANSWER:

$$\angle W \cong \angle Y, \angle U \cong \angle T, \angle S \cong \angle X, \\ \overline{WU} \cong \overline{YT}, \overline{US} \cong \overline{TX}, \overline{WS} \cong \overline{YX}$$

2. Write congruence statements comparing the corresponding parts in the set of congruent figures.



SOLUTION:

Use the matching arcs and tick marks to identify the corresponding parts.

Corresponding angles: $\angle M \cong \angle W$, $\angle N \cong \angle X$, $\angle O \cong \angle Z$, $\angle P \cong \angle Y$

Corresponding sides:

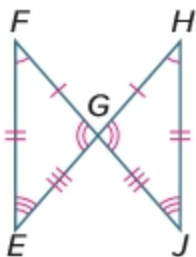
$$\overline{MN} \cong \overline{WX}, \overline{NO} \cong \overline{XY}, \overline{OP} \cong \overline{YZ}, \overline{PM} \cong \overline{ZW}$$

ANSWER:

$$\angle M \cong \angle W, \angle N \cong \angle X, \angle O \cong \angle Z, \angle P \cong \angle Y, \\ \overline{MN} \cong \overline{WX}, \overline{NO} \cong \overline{XY}, \overline{OP} \cong \overline{YZ}, \overline{PM} \cong \overline{ZW}$$

9-2 Congruence and Corresponding Parts

3. Write congruence statements comparing the corresponding parts in the set of congruent figures.



SOLUTION:

Use the matching arcs and tick marks to identify the corresponding parts.

Corresponding angles: $\angle F \cong \angle H$, $\angle FGE \cong \angle HJG$, $\angle E \cong \angle J$

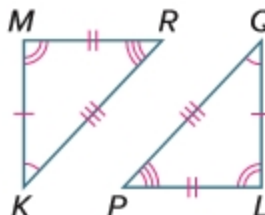
Corresponding sides:

$\overline{FG} \cong \overline{HG}$, $\overline{FE} \cong \overline{HJ}$, $\overline{EG} \cong \overline{JG}$

ANSWER:

$\angle F \cong \angle H$, $\angle FGE \cong \angle HJG$, $\angle E \cong \angle J$,
 $\overline{FG} \cong \overline{HG}$, $\overline{FE} \cong \overline{HJ}$, $\overline{EG} \cong \overline{JG}$

4. Write congruence statements comparing the corresponding parts in the set of congruent figures.



SOLUTION:

Use the matching arcs and tick marks to identify the corresponding parts.

Corresponding angles: $\angle K \cong \angle Q$, $\angle M \cong \angle L$,
 $\angle R \cong \angle P$

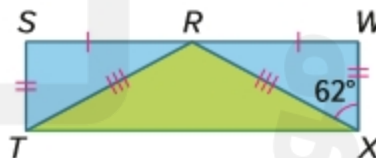
Corresponding sides:

$\overline{RM} \cong \overline{PL}$, $\overline{MK} \cong \overline{LQ}$, $\overline{KR} \cong \overline{QP}$

ANSWER:

$\angle K \cong \angle Q$, $\angle M \cong \angle L$, $\angle R \cong \angle P$,
 $\overline{RM} \cong \overline{PL}$, $\overline{MK} \cong \overline{LQ}$, $\overline{KR} \cong \overline{QP}$

5. In the quilt design shown, $\triangle RST \cong \triangle RWX$. If $m\angle WXR = 62^\circ$, what is the measure of $\angle STR$?



SOLUTION:

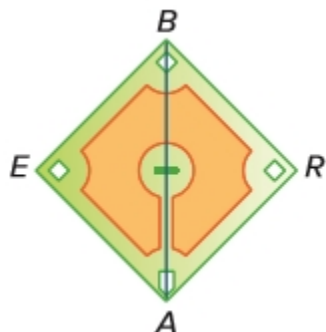
$\angle WXR \cong \angle STR$. Because $m\angle WXR = 62^\circ$ then
 $\angle STR = 62^\circ$.

ANSWER:

62°

9-2 Congruence and Corresponding Parts

6. **Open Response** In the baseball diamond shown, $\triangle BEA \cong \triangle ARB$. The length of BE is 90 feet. What is the length of AR ?



SOLUTION:

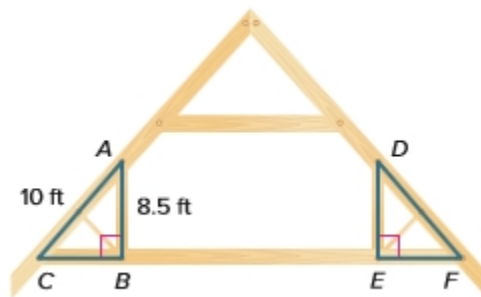
$$\overline{BE} \cong \overline{AR}$$

Because $\overline{BE} = 90$ feet, then $\overline{AR} = 90$ feet.

ANSWER:

90 ft

7. In the roof construction shown, $\triangle ABC \cong \triangle DEF$. If $AB = 8.5$ feet and $AC = 10$ feet, what is the length of EF ? Round to the nearest tenth.



SOLUTION:

$\triangle ABC$ is right triangle. Find the length of BC using the Pythagorean theorem.

$$a^2 + b^2 = c^2 \quad \text{Pythagorean Theorem}$$

$$8.5^2 + b^2 = 10^2 \quad \text{Replace the variables with side lengths.}$$

$$72.25 + b^2 = 100 \quad \text{Evaluate.}$$

$$b^2 = 27.75 \quad \text{Subtraction}$$

Property of Equality

$$b = \pm\sqrt{27.75} \quad \text{Definition of square root}$$

root

$$b \approx 5.3 \quad \text{Round to the nearest inch.}$$

nearest inch.

The length of BC is 5.3 feet.

$\triangle ABC \cong \triangle DEF$, so the length of BC is equal to the length of EF . So, length of EF is 5.3 feet.

ANSWER:

5.3 ft

9-2 Congruence and Corresponding Parts

8. In the city park map shown, $\triangle DEF \cong \triangle JKL$. The distance from D to E is 20 yards and the distance from D to F is 40 yards. What is the distance from K to L ? Round to the nearest tenth.



SOLUTION:

$\triangle DEF$ is right triangle. Find the length of EF using the Pythagorean theorem.

$$a^2 + b^2 = c^2$$

Pythagorean

Theorem

$$40^2 + 20^2 = c^2$$

Replace the

variables with side lengths.

$$1,600 + 400 = c^2$$

Evaluate.

$$2,000 = c^2$$

Add.

$$\pm\sqrt{2,000} = c$$

Definition of square

root

$$44.7 \approx c$$

Round to the

nearest inch.

The length of EF is 44.7 yards.

$\triangle DEF \cong \triangle JKL$, so the length of EF is equal to the length of KL . So, length of KL is 44.7 yards.

ANSWER:

44.7 yd

9. **Create** Write a real-world problem involving congruent figures in which you would need to find the measure of a missing angle or side.

SOLUTION:

Sample answer: An attic roof is composed of two congruent right triangles. The hypotenuse of one of the triangles is 17 feet. What is length of the hypotenuse of the second triangle?

ANSWER:

Sample answer: An attic roof is composed of two congruent right triangles. The hypotenuse of one of the triangles is 17 feet. What is length of the hypotenuse of the second triangle?

10. Determine if the statement is *true* or *false*.

Construct an argument that can be used to defend your solution.

If two figures are congruent, then their areas are equal.

SOLUTION:

If the figures are congruent, then the corresponding sides have the same lengths. So, the same side lengths would be used to compute the areas. So, the statement is true.

ANSWER:

true; Sample answer: If the figures are congruent, then the corresponding sides have the same lengths. So, the same side lengths would be used to compute the areas.

9-2 Congruence and Corresponding Parts

11. Determine whether the statement is *true* or *false*.
Create several pairs of triangles and measure the corresponding sides and angles to justify your response.

If three sides of one triangle are congruent to the corresponding sides of another triangle, then the two triangles are congruent.

SOLUTION:

true; Sample triangles.

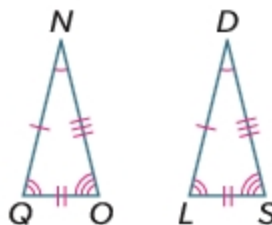


ANSWER:

true; Sample triangles.



12. **Find the Error** A student wrote the congruence statement $\triangle NOQ \cong \triangle DLS$ for the congruent triangles shown. Find the student's mistake and correct it.



SOLUTION:

Sample answer: The order of the vertices is not correct in the congruence statement. The correct congruence statement is $\triangle NQO \cong \triangle DLS$.

ANSWER:

Sample answer: The order of the vertices is not correct in the congruence statement. The correct congruence statement is $\triangle NQO \cong \triangle DLS$.