



proof_two_col_notes.gwb - 3/12 - Sat Sep 16 2017 16:40:16

ExamView

Complete the proof by giving the reason for the indicated step. If $\frac{2}{3}x = 8 - 2x$, then x = 3.

If
$$\frac{2}{3}x = 8 - 2x$$
, then $x = 3$.

Given:
$$\frac{2}{3} = 8 - 2x$$
 Prove: $x = 3$

$$\Rightarrow a. \frac{2}{-x} = 8 - 2x$$

$$\Rightarrow a. \frac{2}{3x} = 8 - 2x$$
b. $2x = 3(8 - 2x)$
c. $2x = 24 - 6x$
d. $8x = 24$
e. $x = 3$

- Substitution property of equality
 Multiplication property of equality
 Reflexive property of equality
 Given

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Complete the proof by giving the reason for the indicated step. If $\frac{2}{3}x = 8 - 2x$, then x = 3.

If
$$\frac{2}{3}x = 8 - 2x$$
, then $x = 3$.

Given:
$$\frac{2}{3}x = 8 - 2x$$
 Prove: $x = 3$

a.
$$\frac{2}{3}x = 8 - 2$$

a.
$$\frac{2}{3}x = 8 - 2x$$

b. $2x = 3(8 - 2x)$
c. $2x = 24 - 6x$
d. $8x = 24$
e. $x = 3$

- Distributive property
 Multiplication property of equality
 A ssociative property of equality
 Commutative property of equality

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Two-Column Proof

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Complete the proof by giving the reason for the indicated step. If $\frac{2}{3}x=8-2x$, then x=3.

If
$$\frac{2}{3}x = 8 - 2x$$
, then $x = 3$.

Given:
$$-x = 8 - 2x$$
 Prove: $x = 3$

a.
$$\frac{2}{3} = 8 - 2x$$

b. $2x = 5(8 - 2x)$
c. $2x = 24 - 6x$
d. $8x = 24$
 $2x = 3$

- A ddition property of equality
 Division property of equality
 Symmetric property of equality
 Multiplication property of equality

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ExamView

Copy and complete the proof. Give the reason for the indicated step.

 $\begin{array}{c|c}
 & 4/5 & 6 \\
\hline
& R & 7
\end{array}$ If $m\angle 4 + m\angle 6 = 180^{\circ}$, then $m\angle 5 = m\angle 6$.

Given: $m\angle 4 + m\angle 6 = 180^{\circ}$ Prove: $m\angle 5 = m\angle 6$

a. $m/4 + m/6 = 180^{\circ}$ b. $m/4 + m/5 = 180^{\circ}$ \Rightarrow c. m/4 + m/5 = m/4 + m/6d. m/4 = m/4e. m/4 = m/4

- Reflexive property of equality
 Substitution property of equality
 Given
- c. Givend. Addition property of equality

ExamView

Copy and complete the proof. Give the reason for the indicated step.

 $\begin{array}{c|cccc}
 & 4 & 5 & 6 \\
\hline
R & T & T \\
\text{If } m \angle 4 + m \angle 6 = 180^{\circ}, \text{ then } m \angle 5 = m \angle 6. \\
\text{Given: } m \angle 4 + m \angle 6 = 180^{\circ} & \text{Prove: } n
\end{array}$ Prove: $m \angle 5 = m \angle 6$

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- ⇒ a. $m\angle 4 + m\angle 6 = 180^{\circ}$ b. $m\angle 4 + m\angle 5 = 180^{\circ}$ c. $m\angle 4 + m\angle 5 = m\angle 4 + m\angle 6$ d. $m\angle 4 = m\angle 4$ e. $\frac{?}{?} = \frac{?}{?}$
- Symmetric property of equality
 Given
 Definition of linear angles
 Addition property of equality

ExamView

proof_two_col_notes.gwb - 8/12 - Sat Sep 16 2017 16:44:14

Copy and complete the proof. Give the reason for the indicated step.

 $\begin{cases}
4 / 5 & 6 \\
R & 7
\end{cases}$ If $m \angle 4 + m \angle 6 = 180^{\circ}$, then $m \angle 5 = m \angle 6$.
Given: $m \angle 4 + m \angle 6 = 180^{\circ}$ Prove: $m \angle 5 = m \angle 6$

a $m.24 + m.26 = 180^{\circ}$ b. $m.24 + m.25 = 180^{\circ}$ c. m.24 + m.25 = m.24 + m.26 \Rightarrow d. m.44 = m.24e. $\frac{?}{} = \frac{?}{}$

- Subtraction property of equality
 Symmetric property of equality
 Reflexive property of equality
 Addition property of equality

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Copy and complete the proof. Give the reason for the indicated step.

 $\begin{cases} 4/5 & 6 \\ R & T \end{cases}$ If $m\angle 4 + m\angle 6 = 180^\circ$, then $m\angle 5 = m\angle 6$.
Given: $m\angle 4 + m\angle 6 = 180^\circ$ Prove: $m\angle 5 = m\angle 6$

- a. $m\angle 4 + m\angle 6 = 180^{\circ}$ b. $m\angle 4 + m\angle 5 = 180^{\circ}$ c. $m\angle 4 + m\angle 5 = m\angle 4 + m\angle 6$ d. $m\angle 4 = m\angle 4$ e. $\frac{?}{2} = \frac{?}{2}$
- a. m25 = m26; Subtraction Property of equality
 b. m24 = m26; Given
 c. m24 = m25; Given
 d. m24 = m25 = m26; Reflexive property of equality

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ExamView

Write a two-column proof. Give a reason for the indicated step Given: Circle H; arc $BG\cong arc\ DF$ Prove: $EG\cong DF$



- Proof

 a arc EG ≡ arc DF

 b HF ≡ HD and HG ≡ HF

 b . C ≡ ∠2

 d . \(\Limits \) \(\L

ExamView

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Write a two-column proof. Give a reason for the indicated step. Given: Circle H_1 are $EG \cong arc\ DF$ Prove: $EG \cong DF$



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- Proof

 a. arc EG a arc DF

 a. b. HE a HD and HG a HF

 c. ∠1 ≈ ∠2

 d. △EHC a ADHF

 e. EG a DF

 a. All adiameters of a circle are congruent

 b. All radia of a circle are congruent

 c. Congruent arcs have congruent clords

 d. Chords are congruent.

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Write a no-column proof. Give a reason for the indicated step. Given Circle H, are $EG \cong arc\ DF$ Prove: $EG \cong DF$



- Proof.

 a arc $EG \equiv arc \, DF$ b. $HE \cong H\overline{D} \text{ and } HG \cong H\overline{F}$ c. $\angle 1 \cong \angle 2$ $\Rightarrow d \quad \Delta EHG \cong \Delta DHF$ e. $EG \cong \overline{DF}$ a. SAS

 b. ASA

e c SSS

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