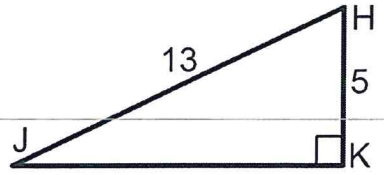
Bellwork Alg 2B Tuesday, January 30, 2018

Use $\triangle HJK$ to find each trigonometric ratio as a fraction.



1. TanJ 2. CosH 3. TanH 4. SinJ 5. SinH

6. If $\frac{\sqrt{72}-\sqrt{32}}{2} = 2^a$, what is the value of a?

A) 2 B) $\frac{1}{2}$ C) $-\frac{1}{2}$ D) $-\frac{3}{2}$

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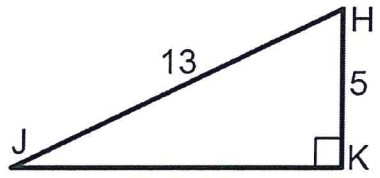

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Answers

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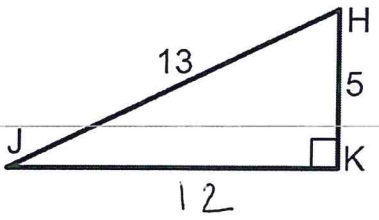

1st: Find JK

$5^2 + x^2 = 13^2$

$25 + x^2 = 169$

$x^2 = 144$

$x = 12$

1. TanJ $= \frac{5}{12}$

2. CosH $= \frac{5}{13}$

3. TanH $= \frac{12}{5}$

4. SinJ $= \frac{5}{13}$

5. SinH $\frac{12}{13}$

$\sin J = \cos H$

6. If $\frac{\sqrt{72} - \sqrt{32}}{2} = 2^a$, what is the value of a?

A) 2 B) $\frac{1}{2}$ C) $-\frac{1}{2}$ D) $-\frac{3}{2}$

$$\frac{\sqrt{72} - \sqrt{32}}{2} = \frac{\sqrt{36 \cdot 2} - \sqrt{16 \cdot 2}}{2} = \frac{6\sqrt{2} - 4\sqrt{2}}{2}$$

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

$$= \sqrt{2}$$

$$= 2^{1/2}$$